# AMERICAN AGRICULTURIST.

Designed to improve the Farmer, the Planter, and the Gardener.

*AGRICULTURE IS THE MOST HEALTHFUL, THE MOST USEFUL, AND THE MOST NOBLE EMPLOYMENT OF MAN*—WASHINGTON.

EDITED BY ORANGE JUDD, A. M. | ESTABLISHED IN 1842. | PUBLISHED BY ALLEN & Co., 189 Water-st.

VOL. XV.—No. 3.] NEW-YORK, DECEMBER, 1855. [NEW SERIES—No. 107.


## A TRIP TO THE MISSISSIPPI.

Through the kind invitations of our old friend Doctor Kinnicutt, Corresponding Secretary of the Illinois State Agricultural Society, and the Illinois Central Railroad Company to pass over their roads through the heart of that great State, we left Buffalo on the evening of the 6th October in the steamer Empire State, one of the strong, spacious, noble boats of the Southern Michigan Railroad, on our passage to Toledo. It is unnecessary to say more to the credit of this road than that, in the person of Mr. Ritchie, their agent at Buffalo, their fine line of boats, and the accommodating officers at each end of their railway route, who manage the road and its running apparatus in most excellent order, the traveling public are always well served and accommodated. Owing to a strong west wind and a tumbling, heavy sea in Lake Erie, we did not reach Toledo until late on Sunday night, where we found capital quarters at the American Hotel. The next day, balmy and mild, we spent in rambling about that thriving young city. It is growing rapidly, has a broad, rich, and as yet, partially cultivated country about it; but being the terminus of several railroads, and the Toledo & Dayton and the Wabash and Erie canals, which extend south and southwest through the rich States of Ohio and Indiana, with the commodious harbor of Maumee Bay lying on its front, Toledo must become a place of great commercial importance. It has now some 15,000 population. Being obliged to take the night train for Chicago, we lost sight of the fine country and thriving towns through which the Southern Michigan and Northern Indiana road passes, much to our regret, and morning rose upon near the head of Lake Michigan, which presented little but barren sand-hills, marshy prairies, and forbidding wastes to our view. Turning northward from the head of the Lake, and pursuing our course along its western shore, which is a low prairie interspersed with sandy oak ridges till within a few miles of Chicago, we coursed along the broad space of open prairie on which that wonder of modern towns is built, and at 8 o'clock arrived at the termlnus of the road.

### CHICAGO.

Some twenty-five years ago we first heard of Chicago as a *practicable* place. It was at the breaking out of the "Black Hawk war." Gen. Scott, with a detatchment of the American army, had been ordered out to quell the murderous onslaught which that desperate Chief with his more terrible "Prophet," Keokuk, had excited. They spent some days at Buffalo on their passage, out from the seaboard, to collect supplies of various kinds, and some weeks after embarking, we well recollect the terrible visitation which his army had by the cholera, but recovering, how they dispersed the hordes of Indians and laid the country open to its peaceful occupation by the emigrants who now flocked in to occupy the rich lands which lay around and about the western shores of Lake Michigan. Scarcely a steamboat then had visited Chicago. Low, flat, and marshy, with a dull, deep stream extending but a few miles into the prairies back, giving shelter to the occasional schooners that carried the blankets and provisions for the fur-traders located there, it was the point of overland transit to the batteau waters of the Illinois river lying a few miles in its rear. And *now*, Chicago is a bustling, commercial city of 80,000 people! a wonder of modern times—exceeding by far, in the results of its voluntary enterprise, what St. Petersburg, with all the energy and despotism of Peter the Great, and his successors, with the whole Russian nation at their command, could accomplish in twice as many years. Here are immense warehouses and stores, and dwellings of a cost and durability, and in a style of architecture, creditable to any of our Atlantic cities. Innumerable railways find here their termini, and radiate to all points of the compass. Fleets of water craft, both steam and sail, congregate in its waters, making Chicago for all future time one of the greatest of our seats of inland commerce. Here, quartered for a week in the charming society of a private family, hitherto strangers to us, we spent our days as agreeably as if we had made out a programme for ourselves, with the entire hospitality of Chicago for the field on which to spread it.

### THE PLACES ROUND ABOUT.

Lying on the edge of a low prairie, spreading several miles north, west and south, with an elevation of only four feet above the Lake, aside from several fine villas and gardens in its immediate vicinity, the wealthy people of the city have begun to appropriate several neighborhoods of the high ground some miles distant for their country residences, which are passed by the railroads. The most desirable of these lands lie along the Lake north toward Milwaukee. Several fine tracts of land, at an elevation of thirty to sixty feet above the water have been appropriated, either in farms, or to be cut up into villa plats by the Chicagans, and extensive improvements are now in progress. We visited some of these, and among the most desirable is that of Jared Gage, Esq., consisting of a fine farm of 130 acres overlooking the Lake, backed and flanked by beautiful woods. On this he has commenced building for a family residence, and has it stocked with the germ of a beautiful herd of Devon and Short Horn cattle, and some Southdown sheep. His brother, Mr. John Gage, has a fine wooded tract adjoining, and both north and south are young villages just partitioned out into commodious lots for building, and on which extensive erections are commenced. They have the good taste, too, to give them the euphonious Indian names of their several localities. At the west, some fifteen miles distant from the city, at Summit, near the Illinois canal, John Wentworth, Esq., of Chicago, has commenced a noble prairie farm of some 1,200 acres, and already stocked it with a fine herd of Short Horn and Devon cattle, Southdown sheep, choice poultry, &c., all under the charge of an accomplished English herdsman and farmer. As the *furor* of money-making becomes somewhat appeased, we may hope that many other of the good people of Chicago will follow the examples so tastefully set before them, and like many of our older cities its vicinity may be embellished by the homes of its retired citizens, surrounded by those delightful rural associations which a cultivated taste and liberal wealth will draw around them.

### THE STATE CATTLE SHOW.

This being the third only of the kind in the State of Illinois, and the first at Chicago, the efforts of its officers were generously seconded by the citizens, and the grounds were conveniently and tastefully got up and arranged, about three miles from the heart of the city, on the south branch of the river, with fine trees shading it, and an inlet or two from the stream inclosed, furnishing it with abundant water. It is scarcely worth while in these abounding days of cattle shows to go into a description in detail of the grounds, its erections, or of all the commodities which lay, and stood, and were spread in such abundant profusion over them. Sufficient let it be to say, that the show in all its varieties was a grand one, its accommodations ample, and the hospitality and attentions of the officers unbounded. The brief notice in our last number indicated some of the interesting articles exhibited, and beyond these it was rich in the display

of Short Horns, Devons, and grade cattle, a few Cotswold, Southdown, and a grand assortment of Merino sheep, horses, mules, and jacks, and jennies. Fruits were abundant, and like all of western growth, of enormous size, but of lessened flavor on that account, yet beautiful and reliable specimens. There were apples weighing two pounds, Dutches d'Angouleme pears weighing two pounds and two ounces, and osage oranges quite as heavy. Stalks of the osage orange were exhibited of this season's growth, ten feet long, and as large at the butt as a broom-stick. By the way, this is becoming a subject of prominent attention with the prairie farmers—and that comprehends pretty much the whole State—for hedging. From present appearances, and the results of their recent trials, we think the experiment will be successful. Hundreds of miles of osage are already planted. Men contract to plant and grow it into a sufficient hedge for a given price per rod or mile. This is the right way. Among the mules exhibited we saw one pair, price $800, beautifully matched fillies, dark brown, which we should feel proud, did we own, to drive before a coach! They were 16½ hands high, and but one year old. Some of the Short Horns were very fine, particularly the herds of Messrs. Brown, Smith, and Dunlap, of Sangamon; and so were the Devons of Col. Capron, formerly of Maryland, and now of Olden, McHenry Co., Ill. The Devons have been but recently introduced here, but in Northern Illinois they will become a favorite stock. There were some beautiful cross bred Short Horn and Devon cows, and a young bull belonging to Mr. Jared Gage, of Chicago, and a pair of fine Short Horn cows of Mr. Fay, of Lake Co., which had recently come from our own State. And there were, besides some other good cattle of these breeds, a throng of creatures *called* by those names, that were *not* so. Still, the people of Illinois are thriving, *learning* people, and will fast fall into the right understanding of what good and true bred cattle are, particularly if they will visit the cattle shows.

One incident pleased us particularly. While in the business office, a bright-eyed little eight-year-old girl came running in, exclaiming, "Pa! I've got the prize!" her little coal-black eyes radiant with joyous excitement. This was addressed to Dr. Kinnicutt, the Secretary, who congratulated his animated little daughter on her success. We turned about and asked the *petite* lady on what article she had so happily won? "Why, for *darning*, sir!" laughed out the child. She had sadly rent her dress in coming to the show, and like a good little housewife, had got a needle and thread and darned it nicely together, and exhibited it in triumph to the appropriate committee, who justly awarded her a prize for it. Let *darning* be a prize to be competed for at all future exhibitions of the kind, thought we. Better to encourage this useful accomplishment than for stitching all the *filagree* work in creation. No telling the household comforts that may grow out of this little prize for darning.

But we must hurry on. The attendance was large—the people all pleased—the show good, and highly creditable to the young State of Illinois. The weather, too, was divine, and the receipts of the Society thirteen thousand dollars! What better could be asked?

FROM CHICAGO WESTWARD.

On the following Monday we took the cars of the Chicago and Galena Railroad for Dunleith, on the east bank of the Mississippi opposite Dubuque in Iowa. For the first three or four miles we passed through the suburbs of the town over the level prairie, and thence on for ten or twelve miles further, till we met the waters of the Des Plaines, a branch of the Fox river running southwardly into the Illinois. Here we met the first standing timber, lying along the stream and covering the slightly elevated sandy and gravelly ridges which every few miles intersperse this broad prairie land. Good farms now began to appear, with sufficient and comfortable buildings. Occasional small streams flowed across our track, and the country became gradually elevated into a gently rolling surface, with none so low but that a little drainage would render it fit for cultivation. The groves were mostly inclosed by fence, and many of them trimmed up and cared for so as to make respectable oak forests in a few years. Elgin, on the Fox river, is a beautiful town, rapidly improving, and well built, with handsome churches, mills, and other manufactories, in the midst of a rich country. The Fox is a fine stream, of perhaps a hundred yards in width, and affording good water power every few miles in its course. The banks of the streams are all well wooded, mostly with white and black oak. Belvidere is another thrifty, beautiful town, on a principal branch of the Rock river, about the size of Elgin, perhaps superior in the amenity of its position, and quite its equal in the style of its buildings. Next among the large towns comes Rockford, a noble town of some 6,000 people, lying on both sides of the Rock river, which we crossed, celebrated for its rich lands and enterprizing farmers. Beyond, some miles, and on the banks of the Picatonica, a confluent of the Rock river, and along the pleasant valley of which we coursed, stands Freeport, a thriving town of less size than Rockford, but promising in growth. At this point the Galena and Chicago road joins the Illinois Central, which comes up from the South, and on that we pursued our way over a rich, and for the most part well cultivated country to

GALENA.

For some twenty miles before coming to Galena the country becomes more undulating, then somewhat broken, more woody, and finally breaks into steep gullies, when we begin to descend gradually into the narrow valley of the Galena, or Fever river, and light upon the busy little city snugly located on its northern bank, and on the sides of its precipitous hills. The road enters the valley on the south or left bank, with its station under the high bluffs which correspond to those on the north. A new town is growing up on this bank also, and many pretty spots among the ravines that stretch away to the south are occupied by pleasant houses, some stores, and mechanic shops. A hundred rods below the station the road crosses the stream into the lower part of Galena proper, and pursues its way down the river. Leaving the cars, we crossed a bridge and took up our lodgings for the night at the DeSoto House, large, commodious, and *one of the best kept hotels we know*. It was now dark—we were tired, and after looking at the newspapers, went to bed and slept soundly. As soon as light, we were up and dressed, and went out to take a look at the place.

Galena is a town *built of necessity*. It is a creation of the immense lead mines in its vicinity. It lies at the head of navigation of the little stream, here about sixty yards wide, three miles above its mouth in the Mississippi, and was commenced about forty years ago for the object of shipping its lead, which is its great business, in boats down the river. The principal street runs along the bottom, near the river, and of commodious width. This is well built, with fine brick and stone stores and dwellings, while immediately in the rear the hill rises precipitously a hundred and fifty to two hundred feet in hight. On the top of this table land, which stretches away, gently undulating for miles into the country, are built many fine and tasteful dwellings. The whole town may have ten thousand people, and has the appearance of very considerable wealth.

Taking the cars at 8 o'clock, we followed down the river a couple of miles, then striking across a low point which marks its confluence, we soon struck the bank of the Mississippi, which we followed eight or ten miles to Dunleith, the northwestern terminus of the Illinois Central road.

DUNLEITH.

This embryo village is the creation of the railway, opposite Dubuque. It lies on a high bank, perhaps twenty feet above the river, secure from inundation, and extending back an average of forty to sixty rods to the base of the high bluffs on the east. The bluffs are perhaps two hundred feet high, precipitous, and filled with quarries of the finest building stone. They are thickly wooded, and present at a distance a picturesque and grand appearance. As the terminus of an important railway, to be met by another on the opposite side of the river, which will in time stretch interminably away to the west, bringing in a tide of travel and commerce, connecting a wide and populous country for a thousand miles east and west, it requires little stretch of imagination to determine its importance.

Hurrying on to the ferry-boat, which with its powerful machinery sent us rapidly over the river, we soon found ourselves comfortably domiciled in the hotel of our old acquaintance, Capt. Kingman, formerly of Buffalo, where both ourselves and our readers will take a rest for the day.

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A GOLDEN HARVEST.—The Boston Transcript says that the foreign money deposited at the Suffolk Bank on Friday of the week during which the National Agricultural Show was in progress, exceeded by 20 pe

cent the deposit of any day since the bank was established.

The deposits of foreign money for that day were $2,059,928!

## EXHIBITION OF U. S. AGRICULTURAL SOCIETY AT BOSTON.

### A LESSON TAUGHT.

To the full reports in the Times we have little to add. The arrangements were on a larger scale than at any previous agricultural gathering in this country, and no other exhibition has been as successful, at least in pecuniary results. We have not learned the exact amount of money received for entries and from visitors, but it was between $30,000 and $40,000—enough to meet all expenses, and leave a handsome sum to go to the treasury of the Society, where it was especially needed. We but speak the universal sentiment, when we say that to Col. Marshall P. Wilder belongs a large share of the credit of originating, arranging, and carrying on the various departments of the Exhibition, though his efforts were nobly seconded and aided by a large number of gentlemen in Boston and from elsewhere.

There is one important lesson taught by the course pursued in getting up this Exhibition, which should not be lost. We refer to the liberal outlay of time and money expended in making the arrangements as complete and magnificent as possible; in the offer of large premiums and other inducements to exhibitors; in the publicity given to the enterprise throughout the whole country, &c., &c. "Nothing ventured—nothing gained," is an adage as true as it is trite. Barnum, the most successful of showmen, understands this, and acts upon it.

The managers of our State, County and Town Agricultural Societies will find it not only to their interest, but absolutely essential to success, hereafter to keep this fact before them. A "one-horse" show may have succeeded in past times, while novel ty was a strong element of attraction; but something more than novelty will soon be required to draw out a crowd at an Agricultural Exhibition.

There is always a certain amount of expense and labor attendant upon getting up any respectable show of agricultural products. It is the amount expended over and above this, in extra large premiums, in superior arrangements, in attractive show-bills and other means of publicity, that has the main effect in getting up a paying "excitement."

We have in mind two County Agricultural Societies, located near each other, and having nearly equal facilities for a successful exhibition. The managers of one society appropriated $2,000 for expenses and premiums, none of which exceeded $20. Only $50 was appropriated to show-bills and other advertising. The neighboring Society, with only the same amount of funds on hand, appropriated $2,900 for the same purposes. They offered ten premiums of $50 each, with several others of $20 to $40 each, and devoted $200 to posting magnificent show-bill in every public place in the County, which was done in the early part of the summer. The Exhibition was freely advertised in all the local papers, and in many others circulating within the County. The result was, the first Society received from visitors and other sources $1,870; while the receipts of the second were $3,645—the first losing $130, and the second clearing $745.

## MORE ABOUT MUCK.

There is no subject, in our opinion, so worthy of the attention of cultivators generally, and especially of those having worn out lands, or those not abounding in vegetable matters, as that of hunting up and using to the best advantage, the stores of vegetable matter abounding more or less upon nearly every farm. Where there are not rich deposits of muck, there are decaying leaves, the washings of meadows, and other sources of organic food for plants. The present season of the year—before the frost entirely forbids such opperations--should be embraced by every one for digging, and heaping up for future use a full supply of these manurial deposits.

In addition to our own articles from time to time, we shall continue to furnish selections on the subject. We give below from the Rural New-Yorker, some hints on the value of muck which though not fully endorsed, are suggestive. That paper says: Some conversation recently had with a farmer friend, on the subject of muck, set us into a reëxamination of chemical theories as to its constituents, manurial value, and mode of action, and what we have gleaned, principally from Dana's 'Muck Manual,' will probably interest him and others. It is a subject on which a great deal has been written, but as yet it is far from exhausted; and the better it is understood the greater will be the importance attached to it. Those who have given muck a fair trial are convinced of its value, which is so readily evident that its use is extending; for in agriculture, as in all else, a good example influences those who look upon it. So farmers are beginning to peer into swamps and pond-holes, and find there something worth looking for and using as an application to *any soil deficient in vegtable matter*. The very nature of muck shows that here it must be serviceable.

Of what is muck composed? Of decayed vegetables--mosses, grass, leaves, and woody matter, pretty thoroughly decomposed.—"Peat," says Dana, "Is the result of that spontaneous change in vegetable matter which ends in *geine*"—a term which, "in an agricultural sense, includes all the decomposed organic matter in the soil. It is highly concentrated vegetable food—not only partly cooked but seasoned." An analysis of specimens from ten different localities in Mass., by Prof. D., gave an average, in 100 parts, of

| | |
|---|---|
| Soluble geine or organic matter | 29.41 |
| Insoluble do | 54.73 |
| Salts and Silicates | 15.55 |

These samples comprise probably a fair average of peat or swamp muck through the country. Dr. C. T. Jackson, from an analysis of twenty samples of peat from different localities in Rhode Island, obtained an average of 72 parts of geine, or organic vegetable matter, and 24 of salts and silicates, in 100 parts, dried at 300°. Muck, even when allowed to drain as dry as it will, contains 73 to 97 per cent of water.

| | Weight. | Soluble geine. | Insoluble geine. | Salts of Lime. |
|---|---|---|---|---|
| Dung, | 9,289 | 128 | 1,248 | 92 |
| Muck (1) | 9,216 | 376 | 673 | 91 |
| do. (2) | 9,216 | 319 | 529 | 81 |

"The power of producing alkaline action," he adds, "on the insoluble geine, is alone wanting to make peat as good as cow dung. Reviewing the various matters, from whatever source derived, solid or liquid, which are used as manure, all possess one common property, *that of generating ammonia*. The conclusion then of this whole matter is this; the value of all manures depends on salts, giene, and ammonia; and it is directly in proportion to the last; it follows that any substances affording these elements may be substituted for manure."

Muck, then, only needs some addition to make it capable of generating ammonia, to give it great value. Any alkali will do this, and ashes well answer the purpose. "It is only necessary," says Prof. Johnston, "to mix *half-dried* peat with any substance which undergoes rapid spontaneous decomposition—when it will more or less speedily become infected with the same tendency to decay, and will thus be rendered capable of ministering to the growth of cultivated plants." Not only ashes, but any fermenting manure, animal or vegetable, will produce ammonia from the decomposition of the nitrogen which muck always contains. Many processes to which we can not particularly refer in this article, have been successfully employed for the conversion of muck into an active manure—and all depend on the principles already stated.

Benefit is often derived from fresh dug muck, applied at once to the soil. In this case a slow decomposition takes, place, evolving ammonia; and amechanical action also results, by which heavy soils are made more porous and friable, and better able to resist either wet or drouth, and also to receive benefit from atmospheric influences. The conclusion is evidently a safe one, that any one *who can have muck for the digging* on his own farm, will find it for his advantage to apply it to almost any upland soil. Its greatest benefit is found when composted with other decomposing agents—for instance, with an alkali, or mixed with stable manure, or used as an absorbent of the liquid portions of the same, or of the gases of animal or vegetable matters undergoing spontaneous decomposition—before its application to the soil. Thus treated, a thousand experiments have shown that a fertilizing material equal in value to stable manure, can be produced at much less cost. Surely it is a matter worthy of the practical and earnest attention of our readers, as well as of frequent discussion in our columns.

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He that will win the game, must look more upon the mark, than the money; if he hits the one, he takes the other.

## TO OUR SUBSCRIBERS.

With this number the subscription of several hundreds of our subscribers run out. To such we send printed notices to this effect, noting also the day on which the Weekly Times, will cease to be sent. We trust that no urging or special solicitation is required, to induce all our present readers to renew their subscription. This should be done at an early day that we may know how many of our next edition to print. We begin striking off the inside sheets of each number as early as the 20th of the preceding month.

We have no claim upon our subscribers for any exertions in behalf of the Agriculturist, but it will do us a *special favor*, if all those who are themselves pleased with our efforts, will mention the paper favorably to their neighbors and invite them to give it a trial. We are able to furnish new subscribers, who may so direct, with the three back numbers (including this one) of the present volume.

☞ In making up each number, we carefully read nearly every agricultural paper in this country, and the principal ones published on the other side of the Atlantic. From all these, amounting to many hundreds each month, we endeavor to select and condense all new hints upon the different branches of cultivation, at least all that may be of practical interest to our readers. The American Agriculturist therefore, in addition to furnishing a considerable amount of original information, is, besides, a compendium of most other agricultural journals published.

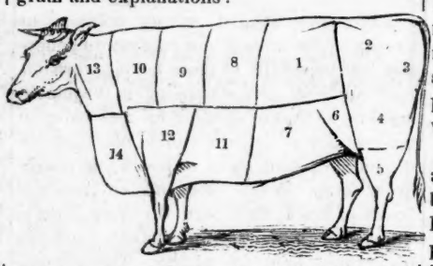
## BEEF—CUTTING UP AND RETAILING.

A few weeks since we stated in the Daily Times that the people of this city pay more for the meat they consume than for the flour, and that with all the excitement in the flour markets, the rise of one cent a pound in the price of beef at 44th-st., is quite as important to consumers as the rise of one dollar a barrel in the price of flour at White Hall. We have seen a good deal of figuring on this matter since making the above assertions, and we believe that our statements are found to be accurate.

Any one can make the estimate for his own family as to the relative cost of meat and bread. Calling the wholesale price of flour $11 per bbl, and that of meat 11c. per lb., one dollar per bbl. rise is equal to just the same per cent as one cent per lb. advance on meat. The latter is more important in proportion to the total cost of the meat consumed.

We have frequently been asked why it is that when we quote the wholesale price of beef at 10 to 12 cents per pound, the butchers charge us 15 to 18 cents per lb. In order to answer this question satisfactorily and accurately, we spent considerable time in tracing several animals from the yards at 44th-st. to the butchers, thence to the Washington Market, and thence to the consumer. We give as an average example, the results obtained in cutting up a bullock which was sold to the butcher for $66, and which weighed, when dressed, just 600 lbs. In this city the hide, tallow, tongue and feet are called the "fifth quarter." Beeves are sold by the estimated net weight. When weighed alive the usual net weight, without the "fifth quarter," is reckoned at 56 lbs., for each hundred lbs. of live weight.

The manner of cutting up the carcass, with the designation of the parts, used in this market, is shown by the following diagram and explanations:




No. 1, is Porter House steak with the tenderloin (on the inside); 2, hip and sirloin; 3, rump; 4, rump steaks (round); 5, leg pice; 6, is by some called the "veiny piece," and by others it is divided, a part to No. 6 and a part to No. 7; 7, is called the "top of the sirloin," or "over the sirlion," though lying under it when the animal is standing; 8, best rib pieces; 9 and 10, "chuck ribs;" 11, plate and navel; 12, shoulder clod (soup pieces); on the inside of 12 lies the "cross ribs; the lower part of 12 is called the "shin;" 13, chuck pieces; 14, brisket. The relative weight of these parts in a carcass weighing 600 lbs. is shown below.

The animal above alluded to, when butchered, yielded for the "fifth quarter:"

| | |
|---|---|
| Hide, 60 lbs., sold for 6c | $3 60 |
| Rough Tallow, 50 lbs., sold for 8½c | 4 25 |
| The four feet sold for 6c. each | 0 24 |
| The tongue sold for | 0 44 |
| Total for "fifth quarter" | $8 42 |

The heart, liver, tripe and head, according to general custom, went to the "butcher boys," as perquisites.

The dressed beef sold at retail as follows:

| | | | |
|---|---|---|---|
| 30 lbs. | Porter-house and tenderloin | at 18d* | $4 63 |
| 76 lbs. | Hip or sirloin | at 15d. | 11 88 |
| 50 lbs. | Best rib pieces | at 15d. | 7 83 |
| 36 lbs. | Cross rib pieces | at 12d. | 4 50 |
| 40 lbs. | Rump steaks | at 12d. | 5 00 |
| 60 lbs. | Chuck ribs | at 11d. | 6 88 |
| 50 lbs. | Rump | at 10d. | 5 20 |
| 12 lbs. | From over sirlion | at 10d. | 1 25 |
| 80 lbs. | Plate, navel and brisket | at 8d. | 6 67 |
| 36 lbs. | Shoulder clod, soup pieces | at 7d. | 2 63 |
| 80 lbs. | Chuck pieces | at 6d. | 5 00 |
| 20 lbs. | Shin pieces | at 4d. | 83 |
| 30 lbs. | Legs | at 4d. | 1 25 |
| 600 lbs. | Retailed for | | $63 55 |

The butcher's account stands thus:

| | | |
|---|---|---|
| One beef. | Dr. | |
| To cash paid at Forty-fourth street | | $66 00 |
| | Cr. | |
| By "Fifth Quarter" | | $8 43 |
| By 600 lbs. Meat retailed | 63 55 | $71 98 |
| Profit | | $5 98 |

This $5 98 must cover time, interest, bad debts, rent, retailing wagons, &c., &c.

We thus see that the butchers have a scanty profit, when they pay 11 cents per pound and retail at the prices given above. Their only chance of profit at these prices is when they can buy below 11 cents, which they usually must do, or else retail at higher rates.

* In this City, most articles sold at retail are reckoned in pence instead of cents.

## COMPOSITION OF WHEAT FLOUR.

Some interesting experiments upon wheat flour have been made, under the direction of Government, by Prof. L. Beck. Thirty-three samples, taken from different brands of flour, were analyzed, to ascertain the relative amount of gluten, starch and water. It will be remembered that the gluten furnishes the elements of muscular or lean flesh, which gives force or power; the starch affords elements for fat, and to support the warmth of the system, while the water is of no value.

The average composition obtained by separate analyses of three samples of each brand of flour, we have arranged in the following table, and added some notes of comparison. The whole will be found convenient for future reference.

| 100 *parts of* | *Starch.* | *Gluten.* | *Water.* |
|---|---|---|---|
| Super-Extra Genesee | 67.00 | 12.09 | 13.00 |
| Pure Genesee | 68.06 | 12.82 | 13.35 |
| Julian Mills | 71.00 | 11.75 | 12.50 |
| Excelsior Brand | 70.20 | 11.40 | 12.40 |
| Ohio Wheat and Grinding | 68.67* | 11.90 | 12.00 |
| Zanesville Mills, Ohio | 67.06 | 14.25 | 13.85 |
| Venice Mills, Ohio | 75.04 | 12.60 | 12.36 |
| From Indiana Wheat | 67.00 | 11.90 | 12.85 |
| Chicago Wheat, Oswego Mills | 66.00 | 11.25 | 12.90 |
| Bruce Mills, Michigan | 65.60 | 11.85 | 13.20 |
| From Floyd Co., Georgia | 68.93 | 14.36 | 11.75 |
| Average composition | 68.59 | 12.37 | 12.75 |

It will be noticed that the Georgia flour furnishes the largest per centage of gluten. This is the case with Southern flour generally.

The largest amount of both gluten and starch, 83.29, is also found in the Georgia flour. The total of gluten and starch stands thus: Georgia, 83.29; Julian Mills, 82.75; Excelsior brand, 81.60; Zanesville Mills, O., 81.31; Pure Genesee, 80.88; Ohio Wheat, ground in Ohio, 80.57; Super-Extra Genesee, 79.00; Flour from Indiana Wheat, 78.90; Venice Mills, Ohio, 77.64; Bruce Mills, Michigan, 77.35; Chicago Wheat, ground at Oswego Mills, 77.25.

If all the remainder, after deducting starch, gluten and water, be reckoned as bran or woody fiber, the average amount of this substance is about 7 per cent. The number of pounds of bran in 100 parts of each kind of flour is as follows: Venice Mills, 10.00; Chicago Wheat ground at Oswego, 9.85; Bruce Mills, Mich., 9.45; Flour from Indiana wheat, 8.25; Super-Extra Genesee, 8.00; Ohio wheat and grinding, 7.43; Excelsior brand, 6.00; Pure Genesee, 5.77; Zanesville Mills, Ohio, 4.84; Julian Mills, 4.75; Georgia, 4.07.

Deducting the water, and calling all the rest solid matter, the solid matter in 100 lbs. stands as follows: Average solid matter, 87.26; In Georgia flour, 88.25; Ohio wheat and grinding, 88.00; Venice Mills, O., 87.64; Excelsior brand, 87.60; Julian Mills, 87.50; Flour from Indiana wheat, 87.15; Oswego flour from Chicago wheat, 87.10; Super-Ex.

* In the published report this figure is given as 58.67, which we think must be the result of a typographical error, and we have accordingly altered the 5 to a 6, making it 68.67.—Ed. Am. Ag.

Genesee, 87.00; Bruce Mills, Mich., 86.80; Pure Genesee, 86.65; Zanesville Mills, Ohio, 86.15.

AGRICULTURAL PATENTS.—The following number of Patents were issued in the United States prior to the year 1855. For Threshing Machines, 378; for Plows, 372; for Winnowing Machines, 163; for Straw Cutters, 153; for Smut Machines, 140; for Grain and Grass Harvesters, 110; Total for these six kinds of implements, 1,317; of which a large proportion have been obtained within a few years past.

## SWAMP OR MUCK ASHES.

Answer to Inquiries.

A subscriber in Connecticut writes: "I have on a piece of swamp land which I have under improvement (or in process of it), some twenty or thirty acres, from which I have to take or pare some six inches or more of roots, leaves, &c. This is simply an excess of vegetable matter, and when burned it gives me from two to three thousand bushels of ashes per acre. Please inform me if I can find sale for these in New-York; and, if so, at what price, and through what channel."

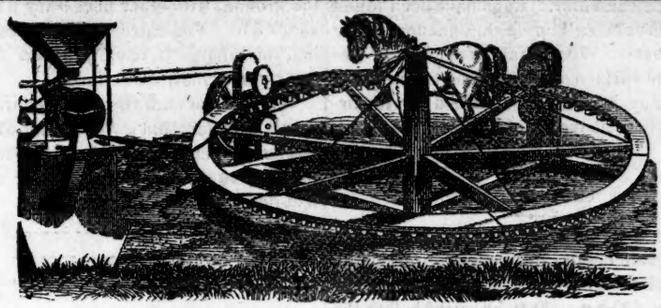
REMARKS.—In reply to the above, and other similar inquiries, we do not know of any one who would purchase ashes of such a character. They are of necessity mingled with considerable quantities of soil, and are of very variable quality. The most economical mode of disposing of them would be to leach them at the nearest practicable point to the place of production, if they can not be sold for application to land in the vicinity. If there are intelligent neighboring farmers, they will pay more for such ashes than any distant dealer, or leacher could possibly afford to give.

But we should be far from advising to burn such peaty soils. The ashes have not a tithe of the value possessed by the unburned material; such vegetable matters are just what is most needed by nine-tenths of the soils of Connecticut, and other long-cultured regions. Let them be composted with lime, or unleached ashes, or with barnyard manures, and then applied to soils deficient in organic or vegetable matter.

If there are roots and bushes too coarse for this purpose, let the coarser materials be gathered and burned, and the ashes from these composted with the finer portions will produce a most excellent manure.

CARROTS FOR POULTRY.—W. C., in the Rural New-Yorker, strongly recommends feeding carrots to poultry. He says he practices this daily, and believes that any one who tries it will not readily discontinue the practice. He chops them finely with a common sausage meat cutter, and mixes them with meal, scraps, &c., and thinks they are the most profitable food that can be used for fowls.

Honesty is silently commended even by the practice of the most wicked; for their deceit s under its color.



## TAPLIN'S HORSE POWER.

Above we present a cut of a horse power that has been in use for a number of years, and which, after this long trial, proves to be one of the best, notwithstanding the pretentious claims of more complicated powers of recent origin. Its construction is readily seen from the illustration, where it is shown attached to a portable grist mill. It consists essentially of a wooden rim, twenty to twenty-five feet in diameter, with wrought iron cogs upon the lower side, which work into a pinion placed upon the end of the shaft of the band-wheel. The motion may be communicated to other machinery, either by a band, rope or chain, or by shafts or rods. The cogs are upon, or rather a part of, iron plates, and bolted on in segments or separate pieces, fitting well together to form a continuous circle. The horses walk around in the circle, where they are readily admitted by a simple unhooking arrangement which opens the side of the rim, after the manner of a gate.

There are two prominent and important advantages possessed by this power: First, its great simplicity, which makes it far less liable to get out of repair; and second, a saving of much of the power lost by friction in the ordinary complicated wheel gearings. It is put together in parts, so as to be readily put up or taken down for transportation or storage.

The larger circles are preferable to those of smaller size, as they give a larger crib for the horse to walk in, and the power is more at right angles to the pinion.

A distinguished planter from South Carolina, wrote us last month: "I introduced the Taplin horse powers here, and no one who has seen them has purchased any other kind since. They are the *only* kind *we* can use on our plantations; and if the cotton planters knew them, not one would ever buy any other kind. This power is in fact nothing but the running gear of our cotton gins; rendered moveable. The two powers are *identical* and we all know how to use them. In fact I would not accept as a present any other horse power now in use."

SOME CORN.—At the recent exhibition of the U. S. Agricultural Society at Boston, Hon. Edward Everett exhibited, during his address, a large ear of corn, which had been presented to him, containing 720 kernels. We have before us an ear raised by Mr. F. R. Rives, of Albemarle, Virginia, which goes ahead of that shown by Mr. Everett. This ear is 13 inches long, 8 inches in circumference nearly the whole length, and contains 863 plump kernels. It is the common white Virginia corn, was raised, without manure, upon clover sod plowed under during the previous winter. There are more of a similar sort in the field where this grew.

## TOBACCO ANALYSIS.

The following analyses of the ashes of the leaf and stalk of tobacco were made in the Laboratory of Prof. Chas. B. Stuart, of Randolph, Macon College, by Mr. W. A. Shepard. We are personally acquainted with both of these gentlemen, having passed some time with them in the Yale College Analytical Laboratory, and from what we know of their carefulness and skill, we attach considerable value to the analyses as here given. The dried tobacco leaf and the stalk were carefully burned. One hundred parts of the dried leaf yielded about 18½ (18.47) parts of ashes which is a very large proportion, when we remember that most kinds of wood and other vegetable substances give but two or three per cent of ash. 100 parts of the ashes experimented upon gave as follows:

| | Leaf. | Stalk. |
|---|---|---|
| Sulphuric acid | 2.95 | 4.12 |
| Chlorine | 5.93 | 14.42 |
| Phosphoric acid | 6.08 | 6.70 |
| Lime | 35.83 | 26.34 |
| Potash | 30.46 | 35.32 |
| Soda | 2.95 | 1.14 |
| Magnesia | 6.96 | 8.30 |
| Soluble silicæ | 1.59 | 17 |
| Charcoal and sand | 6.95 | 3.88 |
| Iron, merely | a trace. | a trace. |
| | 99.70 | 100 29 |

The absence of iron is somewhat remarkable, as there is usually considerable quantities of this substance found in the ashes of most plants. We see that full two-thirds of the ash is potash and lime. Every 100 lbs. of dry tobacco would, according to this analysis, have taken from the soil about 6 lbs. each of potash and lime.

The specimens used were of the variety known as the "Orinico," raised in southern Virginia.

AIR NECESSARY FOR DECOMPOSITION.—The presence of atmospheric or oxygen appears essential to the first development, if not to the continuance of nearly all of decomposition. Meat, vegetables, and indeed most organic substances can be kept from the atmosphere for years. Eggs lose their property of absorbing oxygen by immersion in milk of lime; the small amount of carbonic acid contained within the shell uniting with the solution of lime that penetrates into the pores of the shell, and forming an insoluble carbonate, shutting up all the apertures by

which air can enter. Eggs have been found sweet after being kept in this manner over three years. Wood sunk several feet beneath the surface of the peat bog is preserved from decay, the oxygen absorbed by the organic matter above it not being able to reach it.

## CHAIN PUMPS.

These are very convenient for use in wells of moderate depth. In those of great depth too much time is required for starting the water, and the weight to be raised before the delivery of any at the spout, makes them too hard for boys and females. In the absence of a force-pump water may even be raised with the chain-pump from a greater depth than with a common "suction-pump," which can only be used for less than 32, or at most 33 feet—that is, theoretically; practically they do not work durably at a greater depth than 15 to 20 feet.

The chain pump has been used in wells 50 to 60 feet deep, but rapid motion of the chain and a strong arm is required, and we should seldom recommend them for more than forty feet.

There are also wells occasionally found containing considerable quantities of sulphuric or other acids, which corrode the chain. In such wells this kind of pump is impracticable. We have seen a chain entirely destroyed in three months. Such wells, however, are not common, and the discovery that one of these pumps is corroding rapidly, is worth more than the cost of the pump, for such water is not fit for man or beast. The same acids that would destroy one of these chains would soon destroy the teeth, to say nothing of other injurious results.

We have noticed at agricultural shows, and in agricultural warehouses, a variety of frames or curbs, which are quite ornamental. We give a cut of one of them:


They are made of cast iron, neatly painted, and occupy but little space. The cost of one of these curbs in New-York, including say 15 feet of chain below the surface of the ground, with other necessary fixtures, is about $10. For extra chain, including tubing, the charge is usually about 20 cents per running foot, we believe.

Without the curb the usual charge is, for crank, windlass and lower wheel, $1.50; for tubing 10 cents per foot; and for chain (double) 10 cents a foot; thus for a well 20 feet deep:

| | |
|---|---|
| Crank and wheels | $1.50 |
| 22 feet of tube | 2.20 |
| 23 feet double chain | 2.30 |
| Total | $6.00 |

Or, with curb like that shown in the figure:

| | |
|---|---|
| Curb, wheels and crank | $6.00 |
| 22 feet of tube | 2.20 |
| 23 feet double chain | 2.30 |
| Total | $10.50 |

The chain is made 23 feet instead of 20, to allow for three feet above the surface of the ground.

The most prominent advantages of these pumps are, that the water is always kept free from the taste of the pump-stocks, and that they do not freeze in winter.

The same pump will answer to raise water to two different elevations, and a spout may also be attached to the two opposite sides, and water drawn from one or the other, by reversing the motion of the crank. A description of such an arrangement, on the farm of Mr. Hazard, is given on page 201 of Vol. XIV of this journal.

## FLAX COTTON.

At the recent Annual Exhibition of the American Institute, several most elegant specimens of flax cotton, made under the patent granted to Jonathan Knowles, February 14, 1854, were exhibited by the Knowles Patent Linen Fiber Company. For beauty of coloring, fineness, delicacy, strength, and pliability of fiber, they surpass other samples of flax that we have seen. It has long been known that the stalk of the flax plant was capable of conversion into cotton, and that when thus prepared it possessed many important advantages over the staple now so extensively cultivated in the United States and so universally used by the population of the world. Flax may be spun, woven, and manufactured into every variety of goods that are made of common cotton. It may be used in many kinds of cloth, combined with wool, where cotton is excluded, and in all cases forms a superior substitute; it holds color better than cotton, or even wool. Flax is very easily cultivated, and grows with vigor wherever corn and wheat flourish. Nothing can be more plain than the fact, that if there were any economical process whereby the flax stalks could be easily changed into cotton, its cultivation would be rendered universal. It would become one of the great staples of the world. In the back volumes of the Scientific American we have published much valuable information respecting flax, and the methods of its preparation. Claussen's process, which at one time attracted considerable attention, we have fully described. It is said that Claussen could not produce the prepared flax so cheaply, nor of so good a quality as the ordinary cotton of commerce, and hence his discovery was of little avail, and has almost passed into oblivion. The Knowles Company now present themselves to the public, and claim to have succeeded where Claussen failed.

Knowles' process consists in cutting the flax stalks, whether rotted or not, into proper lengths for staple, boiling it in a weak alkaline solution of soda or potash, until the shives separate on rubbing. It is then bleached by chlorine, adding at the same time, borax, salt, saltpeter, Glauber's salts, Epsom salts, sal ammoniac, or other similar salt. It is then washed with water and dried.

The Company assert that in this manner the farmer can produce flax cotton at a cost under five cents a pound, whereas common cotton sells for from eight to twenty cents. The apparatus required costs from $500 to $1,000, to which, we suppose, must be added the cost of the right to use the patent.

If the statements of the Knowles Company are correct, and we have no reason to doubt them, the invention is certainly one of extraordinary value and importance. The subject is worthy the most careful examination by all agriculturists and manufacturers.

Among the members of the Company we notice the names of several of our most respectable citizens; Mr. Charles M. Keller, is the President. The original capital subscribed was $5,000. Subsequently it was increased to $1,000,000, in order to purchase the English and French patents. Mr. Knowles appears to be a very lucky inventor.—Scientific American.

## FALL PLOWING.

The custom of plowing in Autumn for early spring crops has been steadily increasing among us for nine years. The advantages of it are so many and so decided that it has but to be tried to commend itself to practice.

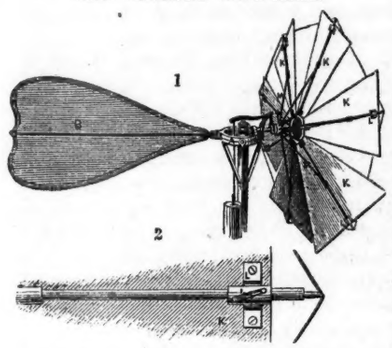
In our northwestern climate there are some peculiar inducements to it which do not exist to such an extent elsewhere. Our spring seasons are very uncertain. Sometimes we have a spring, and sometimes we do not. The frost is likely to hold on, or the rain deluges the ground to such an extent that there is no time for plowing, and the spring crops which await it are either very much curtailed in quantity or are put in at so late a period as to turn out but poorly. On the other hand our autumns are glorious. They are that on which we plume ourselves. Anybody who wants to know what autumn can be, should live in the vicinity of these great lakes, whose waters, when once thoroughly warmed by the summer, keep the air about them warm, till winter has come to others. Hence, while we have little time to plow in spring we have an abundance of it in autumn.

The testimony of experience is that fall plowing for early crops is not only as good as that in the spring, but that it is better, on a large class of our soils, since their tendency to lightness is such that the settling

which the frost gives them is rather a benefit than a damage. On the other hand, clayey lands can not safely be sowed early enough for spring crops if the plowing is delayed over winter, since plowing only serves to make the surface into mortar. Fall plowing for clay lands is the very thing for them, heaving them up to the frost, which is their great agent of fertility.

On all lands, then, fall plowing is the thing. Let us urge to a full use of it while the calm, smoky days of October and November last. While some gather the potatoes and the corn, let others keep the team in motion.

## THE VERMONT WIND-MILL.




Invented by A. P. Brown, of Brattleboro', Vt.

The illustration above accompanied an advertisement in this number. We can not speak understandingly of this mill, as we have not seen it. As the subject is one of considerable interest, we publish, without necessarily endorsing all said, the following remarks furnished us by an interested party, as they apply equally well to any other *good* wind-mill. The writer should have closed several sentences with "when the wind blows." He says:

The advantage of using wind in preference to horse or steam-power has not been duly appreciated by farmers and mechanics. The difficulties in using wind-power to advantage are overcome in the mill above represented. It is ingenious, simple, and a most perfect regulator of its own motion. It spreads a wide sail to a light breeze, and a small surface to a heavy one. An accelerated motion is checked by the action of the mill itself as readily as the steam-engine is checked by the action of *Watt's centrifugal governor*.

Its construction will be readily understood by reference to the engraving. The radical feature in which this machine differs from others is simply this: It governs the obliquity of its own fans, *k*, to the wind by means of the centrifugal force of those fans. Each is furnished with a helical or spiral slot and pin, made fast in the arm, as seen at *i*, fig. 2. In case of acceleration, the tendency of the fans is to overcome a suitable coiled spring, or a weighted lever, and to move farther out on their respective arms, and in so doing the spiral groove, or slot, slides on the pin and turns the fan more and more edgewise to the wind, presenting *less* surface. When the velocity of the wheel is diminished, the spring or weight immediately draws the fans in an opposite direction, and the same slot and pin turn them more to the wind, always adjusting itself to the necessities of the occasion.

Farmers and others in want of a cheap motive power, should look to the inducements offered of putting up wind-mills upon their farms or premises. It may be used very economically to pump water for irrigating or draining land, watering cattle, or for household purposes to the tops of houses. It may be used, and will operate very satisfactorily, to thrash and clean all kinds of grain, to shell corn, and grind wheat, rye, corn, or any other thing to be ground, cut, or mashed, such as apples, roots, vegetables, etc. It is particularly adapted to churning, working butter, washing, turning grindstones, sawing wood, cutting straw, and stalks, or fodder. It will bore and mortise timber, drive small saw-mills, lath-machines, turning-lathes, etc., etc., and, if you wish, it will ventilate your house exceedingly well. It will *not* plow, harrow, cultivate, or mow, but any work which can be *brought to it* may be performed; and it will perform readily, without waiting to be caught, fed, or harnessed. The only food these mills require is about one gallon of oil a year. They do not require as much nursing and attention as horses or oxen, one coat of paint will keep them clean and beautiful a year or more. The attachments used to connect them to different machines, so as to do different kinds of work, cost less than the harness and equipage of horses, and will last more than twice as long. The expense for repairs is much less than that for the shoeing and preparing of teams for labor. The same amount of power costs less, and the wind will not die. Wind-mills will work by night as well as by day, and will run steadily without a driver. They are generally ready to work the greatest number of hours when their work is most needed, viz., in the fall, winter, and spring. They do not regard the ten-hour system, but work early and late, summer and winter.

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Look Well to the Farm Stock.—One of the most observable features among the live stock, in this season of abundance, is the ill condition in which they are prepared for the winter. The luxuriant growth of grass has been at the expense of its nutricious qualities, and every where we go, we find the cattle, and more particularly the sheep, in a lean and often sickly condition; and when we consider that very much of the hay and grain for next winter's use is a good deal damaged, we feel apprehensive that our farmers will suffer great loss among their animals, unless they bestir themselves in time. Farm stock now, is even worse prepared for the winter, than after the great drouth of last year. Sheep and calves should be looked to closely. Get them in good heart, and provide ample shelter and dry quarters against the storms coming on, or you will see such a display of sheeps' pelts and kip skins upon the fences before next spring, as will tell badly upon the profits of the season.

## WINTER MANAGEMENT OF LAMBS.

The necessity for making ample provision of pasture for lambs from their weaning until the approach of winter has already been urged. This, however, is not properly attended to by many, and when winter is at hand, their condition is by no means what it should be. It may be set down as a rule never to be transgressed with impunity, that all animals when growing should be bountifully fed, as well as receive all other proper attentions conducive to their welfare; otherwise, it will be in vain to expect, when at maturity, they will exhibit the perfection of their species. The general qualities of any domestic animal, however perfect nature may have done her work, can always be further improved by art, or otherwise, by judicious feeding, and strict attentions in every other regard. It is very much from this cause, that celebrated breeders have gained their renown for improvements effected in breeds of cattle, as well as sheep. If we would have perfect animals, we can not commence too early to lay the foundation of their excellence.

It is a custom with quite a large majority of sheep farmers to delay graining their lambs until the approach of spring, when they are sometimes far gone in poverty. Is this wise? Would it have been thus if they had been grain-fed at the beginning and through the early part of winter? Is it not better to begin as soon as this, in order to furnish them with the necessary stamina to withstand the severity of northern winters, which is always greatest in the months of January and February? Put them early in a condition to pass through those terrible months, and subsequently all will be well. Truly the course of flock-masters, in this regard, is like giving the patient his medicine when he is on the confines of death! Therefore, viewing the matter in this light, the writer has no hesitation in saying that a single peck of grain fed in December is worth the bushel fed in March.

As we remarked at the conclusion of summer management, the grass at the beginning of November loses much of its nutrition from repeated freezing; therefore at this period the lambs should be assembled, and classed relative to size and condition, divided into flocks of about 100 each, and feeding them grain should forthwith commence. As it is sometimes impracticable to call them into the sheep-folds without considerable trouble, the feeding-troughs should be removed to the field in which they are confined; then the flock-master may begin feeding them about four quarts of oats daily, which he should be careful to distribute the entire length of the troughs. They will be very shy for a day or two, but the example of approaching them by the tame sheep which were placed among them at weaning time, will be the means of soon overcoming it. After the lapse of a week, the quantity of grain may be gradually increased to half a bushel, which should be the minimum quantity for the residue of the season. When the major portion have partaken of the oats, the troughs may be removed back to the sheep-yards,

and the time fixed for feeding should be about sundown, after which they can retire to the shelters, should the weather require it. At this time, a little hay should also be given early in the morning, which may be pursued until circumstances demand a change wholly to fodder.

About the middle of December, or before, let the feed be somewhat changed, by mixing with the oats a portion of pea-meal or wheat shorts; at all events, let it be meal of some kind which they may fancy, for in order to induce them to eat potatoes it will be necessary to cut them into delicate pieces and sprinkle the meal well over them. If sheep are wholly unaccustomed to potatoes their aversion to them will not be overcome without the adoption of this course. Beets and rut-baga may be substituted for the potatoes; but the reader has been informed that they are better adapted to the purpose of the sheep-fattener. If it is our wish to grow wool and not fat mutton, it will be wise in us to use those means which will afford the largest returns. Half a bushel of potatoes given at intervals of twice a week will be the right quantity, which it will be well to continue to sprinkle with meal, as well as with a small quantity of salt. On other days the pea-meal and oats may be fed.

The hay given them should be of fine stalk, and of the choicest quality; but in its place may be substituted once or twice a week, for a single foddering, oat or barley straw. If the lambs are thus provided through the winter, and have the benefit of warm shelters, their size at shearing time will equal the majority of two-year olds, whose treatment has been only *ordinary*.

Remarks.—The foregoing from Morrel is timely and should be attended to by every farmer. We, however, will venture to add the result of our own experience on the same subject. If you wish to keep your lambs in good health and condition, get some of the large round oil cakes, the larger the cakes the better, though they are generally of about twenty-five to forty pounds weight each. Take a slab or plank and put short legs into it say a foot long. Bore an inch hole through the cake and plank and put in a good strong pin, and place it under the sheds where the lambs run. About ten such cakes to a flock will do very well. If the lambs do not begin to lick them within a day or two, put a little salt on, it will not be long before you will find them at the cake, and they will work at it until it is all consumed. They can not get off enough to injure them, but they will get enough to make a manifest improvement in their condition. The cakes must be renewed, of course when used up.—Wool Grower.

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Buckwheat Cakes.—Buckwheat cakes! One buckwheat cake "differeth from another in glory," yet not one in a thousand is made right. Yet of all things it is the easiest to cook, if the meal is made rightly. To every three bushels of buckwheat, add one of good heavy oats; grind them together as if there was only buckwheat; thus will you have cakes always light and always brown, to say nothing of the greater digestibility, and the lightening of spirits, which are equally certain. He who feeds on buckwheat may be grum and lethargic, while he of the oatmeal will have exhileration of brain and contentment of spirit.

## CLAY FOR LIGHT LAND.

At a late agricultural discussion in England, Mr. H. S. Thompson said: "For the last fifteen years he had farmed some land which was bought for £6 10s. an acre, and was let for about half-a-crown an acre for many years afterwards. That land is now let at 50s. an acre, and was as good arable land as any in his neighborhood. When let at the low rent it was a blowing sand, but by a course of improvement it was now capable of producing five quarters of wheat per acre. There was no royal road to farming; and, if they wanted to get their land into a really first-rate state of productiveness, it must be by patient steps of improvement carried over a considerable number of years. Some people thought it was madness in him to put 100 loads of clay per acre on to his light land; but he was of opinion that every load of clay he put on had been extremely well laid out. He had lately visited one of the best Norfolk farmers, who had told him it had been the custom there to put on the light land thirty or forty loads of clay per acre, and to repeat that about every twelve years. The land had, in consequence so altered in quality that it was almost impossible to recognize it again. This farmer was a great Protectionist a few years ago, and he said he would not care for free trade if he could grow what he liked on his land. By the means to which he had alluded, blowing sandy soils have been converted into fertile land, and he believed much more might be done in this country than had ever yet been attempted. They might cart their clay or marl in winter, or at other times when their men and horses had little to do. It was a permanent improvement if they put clay on sand when pretty level; and it was one which tenant-farmers might introduce with advantage. He believed that if they set to work with their land to put clay or marl on the light land, and sand on the clay land, or burnt or deepened it, combined with a thorough exposure to the atmosphere, after a few years they might bring such land into a more productive state."

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A Profitable Crop.—Mr. Sidney H. Owens, who purchased Winchester's Island, containing 80 acres, for $6,000, a few months, ago, has realized half that sum from his crop of broom corn this season. Mr. O. had sixty acres under cultivation from which he realized 40,000 pounds of broom straw, and sold it at prices varying from $7.50 to $10 per hundred—averaging full $8, which makes the gross sum of $3,200. In addition to this he has gathered about three thousand bushels of seed, worth 25 cents per bushel, or $750 for the lot, which makes almost $4,000 for the produce of only sixty acres, and expense of cultivation was about $1,000 which leaves $3,000 net.—Fredericksburgh (Va.) Herald.

## REGULARITY IN FEEDING CATTLE.

Stephens, in his "Book of the Farm," gives the following illustration of the necessity of regularity and method of agricultural duties:

In thus minutely detailing the duties of the cattle-man, my object has been to show you rather how the turnips and fodder should be distributed relatively than absolutely; but whatever hour and minute the cattle-man finds, from his experience, he can devote to each portion of his work, you should see that he performs *the same operation at the same time every day*. By paying strict attention to time, the cattle will be ready for and expect their wonted meals at the appointed times, and will not complain until they arrive. Complaints from his stock should be distressing to every farmer's ears, for he may be assured they will not complain until they feel hunger, and if allowed to hunger they will not only lose condition, but render themselves, by discontent, less capable of acquiring it when the food happens to be fully given. Wherever you hear lowings from cattle, you may safely conclude that matters are conducted there in an irregular manner. The cattle-man's rule is a simple one, and easily remembered—*Give food and fodder to cattle at fixed times, and dispense them in a fixed routine.* I had a striking instance of the bad effects of irregular attention to cattle. An old staid laborer was appointed to take charge of cattle, and was quite able and willing to undertake the task. He got his own way at first, as I had observed many laboring men display great ingenuity in arranging their work. Lowings were soon heard from the stock in all quarters, both in and out of doors, which intimated the want of regularity in the cattle-man; while the poor creature himself was constantly in a state of bustle and uneasiness. To put an end to this disorderly state of things, I apportioned his entire day's work by his own watch; and on implicitly following the plan he not only satisfied the wants of every animal committed to his charge, but had abundant leisure to lend a hand to anything that required his temporary assistance. His old heart overflowed with gratitude when he found the way of making all his creatures happy, and his kindness to them was so undeviating, they would have done whatever he liked.

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Time of Putting up Hogs to Fatten.—The best time to commence fattening your hogs, will necessarily depend upon your supply of mast in your woods—if your hogs be there. While they find enough in the woods to keep them in good thriving condition, the hogs may be permitted to remain there. But we desire to impress the fact upon your consideration; hogs take on fat much better in weather moderately warm than they do when it is cold; that in cold weather much food is required to keep up the heat of their bodies, hence, that all abstracted for this purpose is a tax upon flesh and fat.

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All countries are a wise man's home.

## BREEDING ANIMALS.

### Influence of Parents on Progeny.

The following chapter affords a subject for thought and observation, and is interesting and instructive withal:

Much difference of opinion prevails as to relative influence of the male and female parent in determining the characters of the progeny. According to a very prevalent notion, the male bestows all valuable qualities, whether of form or of vigor; while the female is regarded merely as a passive instrument which hatches, as it were, the male seed—an absurd doctrine long preserved from well merited obloquy as a convenient excuse for carelessness and neglect in the selection of the female parent. A most ingenious hypothesis has lately been propounded by Mr. Orton of Sunderland, in a paper published in the Newcastle Chronicle of 10th March, 1854, and noticed at considerable length in the Monthly Medical Journal for August of the same year. The male animal, according to Mr. Orton, influences especially the external, and the female the internal organization of the offspring. The outward form, general appearance, and organs of locomotion are chiefly determined by the male; the vital organs, size, general vigor, and endurance, by the female. Many most interesting facts, of which we subjoin a few, are adduced in support of this proposition. There are many reasons for believing that Mr. Orton's views afford a clue to an important law of physiology. But this, it must be remembered, can not be the only law operating in the process of generation, and as Mr. Orton himself states, it must consequently be liable to many modifications, and must only be accepted with certain restrictions. Thus the parent, which at the time of copulation is more powerful and vigorous, doubtless imparts to the progeny an unduly large share of its own prominent characters.

The mule is the produce of a male ass and the mare; the *hinny*, (or as it is called the *muto*) that of the horse and the she-ass. Both hybrids are the produce of the same set of animals. They differ widely, however, in their respective characters—the mule in all that relates to its external characters, having the distinctive features of the ass—the hinny, in the same respects, having all the distinctive features of the horse; while, in all that relates to the internal organs and vital qualities, the mule partakes of the characters of the horse, and the hinny of those of the ass. Mr. Orton, speaking of this says: "The mule, the produce of the male ass and mare, is essentially a *modified ass;* the ears are those of an ass somewhat shortened; the mane is that of the ass erect; the tail is that of an ass; the skin and color are those of an ass somewhat modified; the legs are slender, and the hoofs high, narrow, and contracted, like those of an ass; in fact, in all these respects it is an ass somewhat modified. The body an barrel of the mule are round and full, in which it differs from the ass, and resembles the mare. The hinny, (or muto) on the other hand, the produce of the stallion and she-ass, is essentially a *modified horse;* the ears are those of a horse somewhat lengthened; the mane flowing; the tail is bushy, like that of the horse; the skin is fine, like that of the horse; and the color varies also like the horse; the legs are stronger, and the hoofs broad and expanded, like those of the horse. In fact, in all these respects, it is a horse somewhat modified. The body and barrel, however, of the hinny are flat and narrow, in which it differs from the horse, and resembles its mother the ass. The mule and hinny," adds Mr. Orton, "have been selected and placed first, because they afford the most conclusive evidence, and are the most familiar." Equally conclusive, although perhaps less striking instances, may be drawn from other sources. Thus it has been observed, that when the Ancona, or other sheep, are allowed to breed with common ewes, the cross is not a medium between the two breeds, but that the offspring retains in a great measure the short and twisted legs of the sire.

Buffon made a cross between the male goat and ewe; the resulting hybrid in all the instances, which were many, were strongly characteristic of the male parent, more particularly so in the hair and length of leg. Curiously enough, the number of teats in some of the cases corresponded with those of the goat.

A cross between a male wolf and a bitch illustrates the same law; the offspring having a markedly wolfish aspect, skin, color, ears, and tail. On the other hand, a cross between the dog and female wolf afforded animals much more dog-like in aspect—slouched ears and even pied in color. If you look to the descriptions and illustrations of these two hybrids, you will perceive at a glance that the doubt arises to the mind in the case of the first, "What genus of *wolf* is this?" whereas in the case of the second, "What a curious *mongrel dog!*"

Among birds we have the same results, and they afford the like illustrations to our subject. Those who have had much to do with pigeons, must have perceived that a cross between a *carrier* cock and a *dragoon* hen, is always a fine bird, and very nearly equal to the carrier; whereas a cross between a dragoon cock and carrier hen results in nothing better than a dragoon. Precisely the same may be observed in the cross between the *tumbler* and *pouter*.

"It is curious to observe," continues Mr. Orton, that the proposition I make regarding male influence should not only have been observed, but distinctly stated in so many words. Mr. Lloyd says: "The *capercailli* occasionally breed with the *black grouse*, and the produce are in Sweeden called *racklelianen*. These partake of the leading characters of both parents, but their size and color greatly depend upon whether they have been produced between the capercailli cock and gray hen, or *vice versa*. (Yarrell, p. 298.) The hybrid between the pheasant and grouse is a striking illustration, showing so clearly its male parent; in almost all respects it is a pheasant, only the tail slightly shortened. It may be observed, too, that the feathered feet of the grouse have disappeared in the offspring. (Ibid. p. 309.) Another instance of the same cross, is given, (p. 311) in which the general characteristics are those of the pheasant; and this would have been still more striking if the tail had not been spread, a liberty, I suspect, either of the artist or the stuffer of the specimen. The legs in this instance are slightly feathered. Another hybrid is given (p. 313) between the *ptarmigan* and the grouse. Although the precise parentage of the bird is not stated, I am perfectly satisfied that in this case the grouse has been the male parent, and the tail indicated this, being somewhat forked and divergent. In your museum there is an interesting specimen illustrating the same law, a hybrid between the pheasant and grey hen. In this case the produce is pheasant-like in aspect, tail like the pheasant, but somewhat spread, no appearance of forking of the tail."

Even in the breeding of *fish* the same law has been observed. Sir Anthony Carlisle produced mule fish, by impregnating the spawn of the *salmon* by means of the male *trout*. The results I give in his own words: "These mules partook of the character of the trout more than of the salmon. They had bright red spots on their sides, but the black color was shaded downward in bars like those of the perch. The tails were not forked like those of the salmon, as I have seen them in the Thames *skeggers* (from which I infer the male salmon in that case to have been the impregnators.") We thus see in the case of fish, as in that of animals, the male parent giving the external characteristics; those produced by the male trout had not forked tails; the skeggers, on the other hand, produced by the male salmon, had forked tails.—Jour. of the Roy. Ag. So.

## CURING BACON WITHOUT SMOKE.

"Oh the trouble folks have taken
To smoke and spoil their bacon."

To make the best bacon, fat your hogs early and fat them well. By fattening early you make a great saving in food, and well fattened pork. Then kill as early as the weather will allow, and salt as soon as the animal heat is gone, with a plenty of the purest salt, and about half an ounce of saltpetre to one hundred pounds of pork.

As soon as the meat is salted to your taste, which will generally be in about five weeks, take it out, and if any of it has been covered with brine, let it drain a little. Then take black pepper, finely ground, and dust on the hock end as much as will stick, then hang it up in a good, clean, dry, airy place. If all this is done as it should be, (it ought to be done now,) you will have no further trouble with it, for by fly time in spring, your bacon is so well cured on the outside, that flies or bugs will not disturb it.

Curing bacon is like the Irishman's mode of making punch. He said, "Put in the sugar, then fill it up with whiskey, and every drop of water you put in after that spoils the punch." Just so with curing bacon, after following the directions given above, every "drop" of smoke you put about it, spoils the bacon.—Portage Dem.

## MANAGEMENT OF A STOCK OF HOGS.

Does it pay to keep hogs upon a farm? that is the question. We don't know that it does, but we think it ought to pay. It is getting to be a general impression, that to raise one's own pork, and to save one's own bacon, is an expensive luxury. We do not think it is necessarily so, and will give our young friends and others who want advice a few practical hints on this subject.

A good breed of hogs you must have to start with, and thanks to the improvements of the day, you can easily get. No matter how good the breed, however, never suppose he is to live and thrive without proper and sufficient food. The more artificial the breed and the more highly improved, and the more capable of yielding a profit to good management and proper treatment, the less capable they will be of shifting for themselves. If you want a hog that will take care of himself, tear your neighbor's cornfield to pieces, and yield you no profit, get the land shark, with his nose, back, and belly exactly suited to carrying out the intelligent designs of an animal which, from its earliest infancy, has been thrown upon its own resources.

Having got a good breed, have a generous confidence that he will repay your most careful attention. It is desirable to have a permanent fixture, a lot of one or two acres, according to the number you keep, and in this have good lodging pens, where in all weather they may have dry beds of leaves, and make themselves quite comfortable—these may be made of logs, as is very common on large farms, but made of posts with plank on the most economical scale, are cheaper, perhaps, in the end. Give him any amount of liberty which may suit your convenience—let him roam in the woods in winter, or in the pasture in summer, but have your lot and your houses where you can at your pleasure bring them under proper restraint, and give them proper protection. This lot will be very useful likewise to put your pen hogs into for a week or so, in anticipation of their closer confinement in their feeding pens, that the change may not be too sudden from their "larger liberty."

*Management of a Stock of Hogs.*—The usual practice in the management of hogs is to keep the whole stock for the fall killing, through the previous winter. In this practice lies perhaps, the secret of want of success in hog-keeping. The most economical method, we are inclined to think, would be to keep sows enough to have the whole stock of pen hogs come about the 1st March; to be well prepared with ruta-baga turnips, or other roots, a lot of rye or other early pasture, and clover field, to furnish both sows and pigs with full supplies of succulent food from the start, and throughout the season. Such management may bring any tolerable breed to a weight of 150 to 175 lbs. by the middle of December.

This plan would require for a pen of forty hogs, eight brood sows. These sows with the boars, would be the whole stock to be wintered. They should be so managed that they would bring their pigs by the the 1st of March, and allowing for miscarriage or other accidents, might be relied on to average five to the sow. The sows being allowed to breed again, would have as many or more pigs about the 1st of September. These in a good pasture would cost very little to raise them, and might be disposed of in the fall, leaving only the stock of sows and boars after the annual killing. Of the eight sows, four might go into the fattening pen annually to be substituted by four young ones, so as to have always one-half the number, old breeders. When this is done, it would be advisable not to allow the four which are to go into the fattening pen, to breed in the summer.

Another arrangement, a compromise between this plan and the common method would be, for a pen of the size mentioned, to have four brood sows. The August and September litters of these, being kept in good condition, would go easily through the winter with proper care, and with the four sows and boar would constitute the stock to be wintered. Then taking the March litter as before, force them rapidly forward, and unless the fall litter has been particularly well kept, these will rival them in the killing pen. We think either of these suggestions, under judicious management, would take the balance of the hog account from the loss to the profit side. True economy in the management of all animals requires that they be carried as rapidly as possible through the chances of life to that point of development which they afford a return, and he is the best manager who approximates this in his practice. Old habits and old prejudices will fight against it, but we will come to it by and by.

*Feeding.*—A corn and cob crusher the man who keeps twenty hogs must have—that is settled. A boiler we think he will have, if he is determined to make the most of his means. He should grind every ear of corn, and soak a number of hours at any rate, if he does not steam or boil. If he only soaks, he should have two tubs, to be fed from alternately, and whenever he empties one, fill it again. If it ferments somewhat, it will be the better. Boiling, however, would be much better, and insure the appropriation of the whole nutritive matter. This food, with ruta-baga turnips, or other roots boiled or unboiled, both occasionally perhaps, and in such quantity and proportion as your judgment and experience may direct, will be the proper food for your sows—giving them enough only to keep them in good condition during the period of gestation, and ample supplies when nursing. A rye pasture will give early and valuable green food, (rye for this purpose should be sown 1½ bushels to the acre,) and the red clover succeeding, will keep up the supply. The pigs to be weaned at ten weeks old, but to be accustomed, long before that, to eat from troughs in pens from which the mothers are excluded. When weaned, see that they do not lose ground, but push them on. The sows, if well fed, will soon breed again in time to bring their litters by the last of August. These litters, if your sows have a good wood range, we have known run till Christmas without a grain of corn, and make very good thrifty shoats. The feeding of all intended for the fattening pen must be regularly carried on through the season. An acre or two, or more, of field peas would be desirable pasture for them about September. By the beginning of October they should be brought into the inclosure mentioned in the beginning, their ground corn gradually increased, with pumpkins, &c., and by the middle of October, have them in their pens on full allowance of corn until fat—taking advantage of the moderate fall weather for fattening, and killing on the *imcrease* of moon, not that we believe in the moon, not at all, but that's as good a time for killing as the decrease, and why not take all the chances against *shrinkage in the pot.*

The points that we would press as to feeding, is a generous supply from the beginning, but moderate or full in proportion as you may want a moderate size—say 150 lbs., or a larger, say 200, or more. We recommend a gradual change from pasturage, increasing the supply of more nutritious food until he can, without injury to his digestion, take a full supply—also gradual change from a free range, first to his lot of an acre, and then to his close feeding pen. Then we recommend the most thorough preparation of his food by grinding and boiling. These, with tight, dry pens, will settle the question whether hogs will pay the cost of their keep.

If the reader thinks he will further test the matter, let him open such an account as the following. It will add much to the interest of his farm operations to have a number of such accounts, and tend to promote accuracy and care in the general conduct of his business transactions:

*Stock of Hogs to A. B. A.* *Dr.*

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|---|---|
| To value of stock of Hogs on hand 1st January, say eight brood of Sows, at $10 | $80 00 |
| One Boar | 15 00 |
| To Corn furnished them for 3 months, To Ruta-bagas " " " } say | 36 00 |
| To Corn, Pasturage, &c., from 1st April to 1st of October, say | 64 00 |
| To feed and attendance on pen hogs | 120 00 |

American Farmer.

How to Cut Hedges.—Almost all the thorn hedges one sees are chipped square, *i. e.*, the top is made flat and the sides perpendicular, the object apparently being to make them as much like a wall as possible. An observation I heard made lately seems to have a great deal of truth in it, viz., that this system has a great tendency to make the hedge grow thin below, and that it is a much better way to keep it widest at the base and let it gradually taper to a point at the top. I have certainly seen hedges managed in this way present a beautifully close surface, which I attribute to the plan of allowing a much greater number of shoots to reach the outside. Hedges kept square are very apt, when old, to get "blanky," and grow bare near the ground, even though the top may be quite thick and flourishing. In this case there is no remedy but cutting down, always a disagreeable necessity, for then all shelter is gone at once, whereas this would very seldom be necessary if the hedge was kept in a pyramidal shape, for then there would al-

ways be plenty of shoots close to the ground equally young and growing as those at the top.

## GRASS.

The following is condensed from the excellent address of Gov. Wright, of Indiana, at the recent New-York State Agricultural Exhibition:

After some general remarks on the relation of man to the earth, the honorable character of agricultural labor, and the general order of creation, Gov. Wright proceeded to speak of grass, as having received far less than its proper share of attention. No crop, he said, approaches so near a spontaneous yield, and none yields so large a profit. The hay crop of the United States in 1850 was over 13,000,000 tuns; that for 1855 he estimated at 15,000,000, which was worth $150-000,000, while the whole cotton crop is valued at only $128,000,000. Of this crop more than one-half is produced by the four States, New-York, (which yields one-fourth of the whole,) Ohio, Indiana and Illinois. The grass crop, which is used for pasturing, is at least as valuable; so that this single herb is worth annually over three hundred millions of dollars.

The qualities of grass vary with different latitudes—some being adapted to wet, others to dry soils—some being more nutritious than others, particular kinds being specially adapted to the production of milk, and others again being mainly useful for fattening cattle. Like all other vegetable and animal products, grass is susceptible of improvement by culture, and will repay a much greater degree of care than is usually bestowed upon it. There are 215 kinds of grasses cultivated in Great Britian; probably half that number might be found growing spontaneously in this country. In France the meadows and pastures constitute about one-seventh of the cultivated lands; in England three-fourths; in the United States they do not probably exceed one-third in the best grazing States, and one-eight in the others. Much land is abandoned to weeds which might profitably be devoted to the culture of grass. Wherever there is a large supply of lime in the soil, and a clay subsoil, grass will grow luxuriantly. The silurian hills on the borders of our western waters, and the mountain limestone regions are also well adapted to its growth, while they can not compete with the sandstone and drift formations in the cultivation of wheat and other cereal grains. With proper attention those districts adapted to the growth of grass might become the wealthiest portions of the Republic.

We shall always find superior stock in those districts where the cultivation of grass is most carefully followed. This is clearly proved by the examples of Great Britain and Holland, as well as Jamaica, where the cultivation of a single kind of grass has increased beyond computation the value of the trade and commerce of the island. Blue grass has done for Kentucky what turnips have done for Flanders, and portions of England and Scotland—not only arrested the old process, but restored the soil, and brought large profits to graziers. Along the banks of the Merrimac, grass that fifty years ago was considered a great evil, has within the last twenty years been regarded as equal if not superior to any other variety for hay. Similar favorable changes have been made in the south, and in every portion of the country where the attention of agriculturists has been directed to the subject. Some persons are active in the introduction of foreign grasses; but our indigenous grasses should first receive attention. We have an immense variety of which the great mass of our farmers are as yet almost wholly ignorant. The alarm that prevails upon the occurrence of drouth, of early frost, or of anything that threatens particular crops, shows the importance of studying carefully the adaption of particular crops to special soils, and of modifying our mode of culture to each emergency. Man has a great many foes to contend with in the destructive agencies of nature, and it is only by study and care that his labor can be made the most productive. We need more general attention to farming, less collection of people in cities and villages and more scientific devotion to agricultural pursuits. According to the census of 1850, one-eight of our entire population live in cities whose population is over ten thousand; and at least one-fifth of the population are residing in towns, villages and cities. Taking into view the extent of our territory, the sparseness of our population to the square mile, the cheapness and fertility of our lands, and the facilities for exchanging all commodities, and productions of skill and industry, the history of the world shows no instance in which the people of a civilized nation exhibited such a preference for city and village life. When our population shall have become two hundred millions, one-half of the people will be crowded in cities, towns and villages—unless the popular sentiment of the nation, after overcoming the general aversion to manual labor, and subduing the hot thirst for professional and mercantile pursuits, shall awaken in the American mind a strong love for rural life. One great object of Agricultural Societies is to incite a love for agricultural pursuits and diffuse a knowledge of valuable scientific truths among agricultural communities.

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Bread from Grown Wheat.—For the benefit of our neighbors who have sprouted wheat, and also a mercy to the miller, please insert in your paper the following recipe for making bread from grown wheat:

Place the flour in a pan under the stove, or where it may become hot and keep so for five or six hours, until thoroughly dried through. Knead the dough harder by working in more flour, and bake slower and longger, so as to dry out the moisture, and you will have light, dry, white bread. A little alum will improve it, if the wheat was badly sprouted. H. J. C.

[We have seen samples of bread, made from new, grown wheat, according to the above recipe. The bread was free from clammy moisture, and of good quality.]

## CORN-CARRYING ON THE RUSSIAN STEPPES.

In order to judge at what cost the most important of those exports are thus brought, and in order to enable an inquirer to predict with any approach to certainty what could be done under the pressure of the most extraordinary temptation from without, let us leave the sharp stones, deep mud, or clouds of dust of Odessa, and examine the tracts along which those long line of bullock wagons come creeking from more northerly directions. I have said that a vast belt of Steppe girdles this coast. We are upon a Steppe. The prevailing color, as far as the eye can reach over the immense plain, is a scorched brown. The intense heat and drouth have reduced the Steppe to this condition, and far beyond the horizon line, and away, verst upon verst, is the same dreary looking and apparently waste expanse. Not that it is all flat—hills, barren and rugged, diversify the line, and add to its difficulties, in dry weather considerably, in wet incalculably. For look at the ground on which you stand. You are on one of the roads, as they are termed. Elsewhere, a road, good or bad, means something which has been *made*—a line, upon which has been gathered material for binding and clasping, and below which there is some kind of draining; bad or good, the road is, as compared with the adjacent land, dry, compact and elastic. Dismiss all such ideas from your mind, or rather drag your limbs for an hour behind that corn-wagon, and such ideas will disappear of themselves. Dead and helpless seems that wo-begone track, creaking and drawling over which comes the bullock-wagon—all wood, and built precisely as wagons were built a thousand years ago. The driver sits in front, occasionally lashing the gray bullocks more by way of form than with any idea of hastening them, and his massy beard hangs down over a species of censor, whence arise fumes of an unsavory kind. But it is not in luxury, or in imitation of his eastern neighbors, that the peasant keeps this odor-breathing vessel under his nose—the contents are an abominable mixture for greasing the wheels of his wagon, and by which you may trace it through many a yard of tainted air. Why he has placed the reeking vessel between his legs I know not, unless it be to remind himself more forcibly of the necessity of an operation, without the incessant performance of which his clumsily built cart would be on fire in four places at once. Contrast this wretched machine with the well contrived, iron mounted cart of the German colonist, a few miles hence. But on goes the wagoner, jolting and creaking along the unhelpful soil, and singing some of those old airs in which, rude as they are, there is some melody, or saying prayers to one or other of the multifarious national saints. On he goes, and so he and his predecessors have gone since corn was grown in Russia. Ricketty carts, knotted rope harness, drowsy bullock, wretched roads—so crawls the loaf toward the Englishman's table.—S. Brooks, a Year in Russia.

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Nature is limited, but fancy is boundless.

## AGRICULTURAL EXHIBITIONS.

The following from the Farm Journal corresponds with what we have expressed in an article in the Times, especially that part of it which refers to agricultural exhibitions degenerating into horse races and raree shows. The Journal says: Many of our County Exhibitions the present season, and the State one at Harrisburg may be included, have not come up to the expected standard, either in a financial point of view, or the number and variety of contributions. There has been an evident falling off, in a general way, from last year, the cause of which should be examined. No one can question the advantage to the farming community, in many respects, of these annual gatherings. Farmers having their business and residences often many miles apart have not the same conveniences as merchants, manufacturers, or mechanics, for frequent intercourse and transaction of business. They have no common place of meeting or change. Hence agricultural exhibitions are useful in bringing them together, enabling them to see and compare, from year to year, the improvements in stock, implements, new seeds or productions, &c., and if they are firmly established on a permanent and suitable basis, there can be but little doubt they will exercise a very beneficial influence on agriculture. We dislike, however, to see them languish or drag heavily along, to see them barely paying expenses, and to do this at all making it necessary for the recipients of premiums paltry as they often are, to relinquish them for the "*good*" of the Society, and to have such persons held up as examples of patriotism for others to imitate. We have regretted there should ever be a necessity for this, and also that to keep up an interest or excitement and draw a crowd, it has been thought advisable or necessary to introduce the race course as a regular feature of the occasion; also equestrianism by ladies, baby shows, as has been done in Ohio, and other additions *a la showman*. From what we have seen outside as well as inside of the grounds the present season, we fear these agricultural festivals are rapidly losing their original character and design, and degenerating into occasions for dissipation, horce racing, intemperance, &c., and that we shall ere long have them accompanied from county to county by menagerie exhibitions, circus riding, jugglers, infant drummers, &c., *et id omne genus*.

No one can fail to perceive that more attention is given already to the *course* than to an examination of the improved stock, vegetable productions, or new implements. The question of who has raised the best crop and variety of wheat or corn, exhibited the best specimens of cattle, sheep or swine, is not thought so important as who has the *fastest horse*.

It seems to us the entering wedge is already made for these exhibitions to change their character, and that it is well worthy considering how they can be maintained on their original intention. Must they be repeated at less frequent intervals, must they lose their original character, or had they better be abandoned?

We recollect being present, some years ago, when Nicholas Biddle, at the close of a capital agricultural address, remarked that the world was governed by three boxes—the cartridge box, the ballot box, and the band box, *force*, *reason* and *affection*. We thought at the time one kind of box was omitted—*the money box*. Despicable as money may be *in the abstract*, still, in these fast times, it is the Archimidean lever which moves the world, builds churches, school houses, railroads, makes peace and war, gives energy to every effort, is the *aim* of all human pursuit, buys Durham stock, reaping machines, and we say it in a whisper, hoping no one will repeat it, *even controls elections*. People generally will not work for philanthropy or patriotism solely, but for their pecuniary advantage; and we believe that unless some advantage results pecuniarily to exhibitors from these annual displays, they will not continue their contributions, and the exhibitions themselves consequently drop. Believing they have been and may be highly useful, this to us would be a matter of great regret. Our idea is, that in any section where an agricultural society *flourishes*, there will be enough public spirit to raise a permanent fund by donation or liberal subscriptions, the *income* of which should be appropriated as one object at least, to sustain the character of the annual exhibitions, and especially to increase the amount of premiums. Make these large enough to answer the object of *remuneration*, and thus excite competition. This is the design and meaning of a *premium*, which should indicate reward for excellence or success in any department, but in nine cases out of ten, to the recipient it now involves a real loss. Take, for instance, the premium offered for a display of vegetables, which varies from two to five dollars at the outside in most county societies' schedules. They are raised with considerable expense of extra labor and manure, and would bring eight or ten dollars in market, but remain at the exhibition for two or three days until they become worthless. What advantage is a premium to such an exhibitor? or a diploma. So with a fine cow which the owner may drive from five to fifteen miles, and run the risk of a two or three dollar premium or diploma. We have had cows which did not recover from the change of keep, fatigue of the journey, &c., for several weeks, and fell off in their yield of butter two or three pounds per week in consequence. We never could calculate that the two or three dollar premium was a compensation, but that we were an actual sufferer by the operation. The same reasoning may be applied to almost any articles usually exhibited. The premiums are not generally large enough to pay. This appears to us the great secret, and unless there is some method to make them more worthy of serious effort and competition, we fear many of our old county societies will be unable to continue the interest in them by the public.

Can not the same plan be pursued as with many of our institutions of learning, which, by endowment, bequest, or donation, have a permanent fund for their support independent of their regular receipts. Several farms have been recently offered for the Farmers' High School of Pennsylvania; can not the same public spirit be directed to the permanent establishment of our county agricultural societies? In England premiums are made large enough to be highly and directly remunerative. They are made worth striving for, and this is the key to their success. Ten, twenty, fifty, or one hundred dollars, for a good animal, a fine crop, a valuable implement, is an object. Premiums there deserve their name, and if they could be made to partake of the same character here, we should find no necessity for bringing in extrinsic objects to attract attention and draw a crowd.

At the late exhibition of the United States Agricultural Society at Boston, a fund was raised of $20,000 for the occasion. Every one knew beforehand this was equal to an insurance of success.

## EATING AND SLEEPING.

*Eating too Much.*—What countless thousands it puts into the doctor's pockets, furnishes his splendid mansion in Union-square and Fifth-avenue, enables him to "sport his carriage," to own a villa on the banks of the Hudson, and live in style to the end of the chapter!

"*I can't help it*," says the poor unfortunate milk-and-water individual, who never had decision enough to do a deed worthy of remembrance an hour later. My wishey-washey friend, suppose I help you to avoid making a beast of yourself.

Have two articles of food sent to your room, besides bread and butter, with half a glass of cold water. I will give you permission to eat as much as you want, thus, thrice a day. Or if you prefer eating with company, you may safely sit down to the "*best table*" in the land, if you have manhood enough to partake of but any two articles. *It is the variety of our food which brutifies us.*

*Don't Sleep Well.*—Since the *fullest* amount of sleep is as essential to the healthful working of mind and body as necessary food, it may be well to know how to secure it, as a general rule.

1. Clarify your conscience.

2. Take nothing later than two o'clock, P. M., except some bread and butter, and a small cup of weak tea of any kind, or half a glass of water, for supper.

3. Go to bed at some regular early hour. Get up the moment you wake of yourself, even if at midnight.

4. Do not sleep an instant in the day time.

Unless your body is in a condition to require special medical advice, nature will regulate your sleep to the wants of the system, in less than a month; and you will not only go to sleep at once, but will sleep soundly. "*Second naps*" and siestas make the mischief.—Hall's Jour. of Health.

## A GERMAN AGRICULTURAL FAIR.

The following familiar description of an Agricultural Exhibition held last year at a little German City, called Hamburg, is furnished to the Homestead by our friend and correspondent Mason C. Weld. The manner of conducting the exercises, especially at the after-dinner meeting, may give a hint or two to the managers of similar Societies in this country:

To give an idea of the appearance of this or any other old European town, is quite beyond the ability of my pen, but well do I remember the crooked streets of funny old houses, with their stacks of chimneys and pipes, with their old odd ornaments and pictures of saints and virgins, their projecting roofs and stories over-hanging each the one below—well remembered too are the crowds in the streets and in the hotels; and, by the way, no sight in the world is jollier than a German tavern guest-room, *full*. One sees the good, honest, intelligent faces of sturdy farmers, glowing with good nature and good health, earnestly discussing something or nothing over their beer, while volumes of smoke rolling up from each one wreathe and curl for a moment before blending with the hazy atmosphere. Everybody seems to say, "It's our holyday, and we are enjoying it."

On the way to the cattle show we passed through the public square before the Town Hall. Around this are grouped the most distinguished buildings, the ancient glories of the town. The square is small and paved throughout with cobble stones, and near the center is the fountain, which answers the purpose of a town-pump. Upon an ornamented stone shaft, rising some 12 feet from a basin some 16 feet in diameter, are six platter-faced lion heads, from their mouths proceed the same number of gunbarrels, and from them flow oilyly, streams of water, which fall without breaking their round glassy form within the basin, between two stout iron rods which serve to sit tubs and pails upon for filling. The basin is of hewn stone and looks as if it were made 1,000 years ago.

Arrived at the cattle show, we found people all expectation and waiting for the procession and the music—for nothing goes well without a band of music—but in the meantime I devoted myself to the cattle and horses, sheep and swine.

The cattle of this part of the country are of two distinct breeds, the one a large-boned, heavy, slow-maturing, very large breed—the other, smaller, more delicate in structure, quicker in arriving at maturity, good fleshed and altogether very nice and serviceable. The color of these breeds is similar, of a yellowish dun; in the larger, the "Donnersberg," it inclines to very light, and in the other, the "Glahn," to darker dun; being uniform all over each animal, except the muzzle is always white, and the belly lighter than the back.

I was particularly pleased with the "Glahn" breed—the more so from the fact that it is a natural one and of course the more likely to improve by careful breeding. Many of the animals exhibited had points of great beauty; and it is said that they show annually improvement. The government shows a commendable interest in these things, providing veterinary schools where at small expense young men may become skilled both as cattle doctors and as judges of cattle, horses, etc., and then by settling in various places, upon moderate salaries, such as pass satisfactory examinations; each having care of a certain district, all the male breeding animals in the country come more or less under govermental supervision. In each village one or more approved bulls are kept, their owners being paid by government. The same arrangement to a certain extent is followed in regard to horses also. The veterinary physicians exercise a controling influence in these agricultural gatherings, and have, so far as my observation went, the entire confidence of the farmers.

But to return to the cattle show. There is among the uniformed *Bauers* a strong tendency to cross these two breeds, and this crossing does not improve the "Glahn," though it does the "Donnersberg"; it has fortunately met with a check or the time would soon come when no pure Glahn blood could be found. Among the cattle were also a number of specimens of the large lowland Swiss breed. This breed is better known than the other two—in color, dark red pied; of very large stature, though not coarse. Those which I saw could hardly be regarded as well bred animals, yet they had much more the appearance of it than either of the other breeds. No one of them would suit our taste as to looks, though the Glahn and the Swiss are said to be superior beef breeds.

There were some fine horses of the breed called "Zweibraecken." These are by no means thoroughbreds, but probably crossed years back with blood horses, yet are good roadsters, and great numbers are annually exported to France. One hears, here and there, all over central Europe, of districts embracing only a few villages, where there are peculiar and superior breeds of horses, having no pretension to high blood. I have heard it suggested that this may be accounted for by the wars that have raged over the land in years past, when many a fine steed ran masterless, and becoming the property of the inhabitants, has improved the stock in the region.

There were some imported English swine whose bare, cylindrical bodies, small legs and turn-up noses, contrasted strongly with the bristly case-knife breed of the region, and attracted more attention than any other part of the show.

After the committees had viewed and reviewed the stock I was introduced to some of the chief men of the Society, and soon we all marched down to the town hall, flags flying and music playing. Here was an exhibition of fruits, vegetables, and manufactures; and it contained not much of interest. After dinner a meeting was held, at which addresses were made, and an account taken of the yield of the harvests in the various districts represented. There were generally some two or three leading men from each town personally called upon to state the average crop of wheat, of rye, oats, potatoes, beets, etc., respectively, and then a statement was prepared, and one agreed to by them was recorded; the towns being divided into classes, upland, lowland towns, etc. Thus all the circumstances of weather, changes and faults of practice or extensive improvements are taken note of and recorded. There were several papers read upon such subjects as the potato rot—introduction of new crops, etc. I was very much interested in the meeting.

The afternoon was given up to popular sports, climbing greased poles, running foot races, and a number of sports less known among us. One was this—a car upon an inclined track ran beneath a pail of water from which a ring was so suspended, that if a person riding in the car and holding a spear could thrust it through the ring, it was all right, but if he failed the water dashed all over him. Another was a novel race run by women and girls, each carrying on their heads a tub filled to the brim and holding some 6 gallons of water. They were obliged to stop if a drop of water spilt over. They ran some dozen rods to reach a cord upon which were suspended articles of wearing apparel, from among which they could take their choice. Some of these girls ran with great celerity, the surface of the water hardly showing a ripple: others were not so fortunate. These sports were not contrived nor controled by the Society but by the town—instituted in order to draw a larger crowd.

These assemblages differ from similar ones in this country in the sociableness of those assembled. The two or three hours spent in the wine or beer cellars are more attractive to most who come, than the cattle show. Appointments for meetings at such a time for friendly social intercourse are made by friends and acquaintances living in different towns, and it does one's heart good to see these groups of friends in the hotels and breweries. It was a satisfaction to see that the indulgence of their appetites was carried to nothing like excess or rioting, as I fear it would have been if nervous Yankees instead of Germans had been thus assembled.

## SAWDUST FOR BEDDING.

During a short sojourn in Ohio, we visited most of the livery stables, and found that the only bedding in use was sawdust. The proprietors of each stable all testified that it was far superior to straw or hay; and in these times of scarcity, it must in certain localities be more economical. Without doubt, sawdust absorbs a large amount of urine, and also its ammoniacal gasses; preventing the one from saturating the stable floor, and the latter from deteriorating the stable atmosphere.

Sawdust occupies less bulk than straw, and, at the same time, affords as soft a bed; the filthy can readily be separated from that which is still useful, and with the admixture of a fair proportion of excrement, forms a valuable fertilizer. Some persons, however,

may object to the use of sawdust, on account of its absorbent properties, which acting on the horse's hoofs may tend to render them dry and brittle, and utterly impair the function of the same.

Should this be the case, we have only to stuff the hoofs with moist clay, or even wash them a little oftener, and the evil, if it exists, can be remedied.

One half the stable keepers in New-England and elsewhere, have during the past year, been sorely puzzled to provide sufficient bedding; and unless some better and cheaper material turns up, we would advise the interested to try sawdust. Perhaps the addition of a few shavings might be advantageous; but, try *sawdust*.—Am. Veterinary Jour.

## "THE BEASTS THAT PERISH."

We mean, good reader, those old cows and oxen—yours perchance—destined to die of cold and starvation, somewhere between the 10th of March and the 10th of April, 1856, "poor and very ill favored, and lean fleshed," such as Pharoah dreamed of, but "never saw in all the land of Egypt for badness." We are neither a Prophet, nor the son of a Prophet; but judging by the past, we have a distinct foreseeing of what will surely come to pass, as to these said lean kine.

In the first place they will do what they did, in Pharoah's dream; they will eat up the fat kine. That's their mission and their revenge. Whatever of profit your generous milkers and well fatted oxen may have yielded, will surely be swallowed up in this most unthrifty trade of murrain hides. It is a trade that can not by possibility be made to pay expenses. Even the farmer who discharged his overseer, because the result of his year's management show a falling off in this source of income, we have reason to believe made no gain by such sagacious policy.

Apart from any consideration of profit, surely no man, much less one who calls himself a christian, will distinctly anticipate and realise, the misery, and slow pining wretchedness of the helpless brutes he has charge of, without taking prompt and efficient measures to guard against it. It is for this reason, we call attention to the matter now. Now is the time to prevent it, because now it can be readily done. There is no difficulty about it, if taken in time.

Overlook your stock and your means of support, and determine what proportion you have the amplest provision for, through the winter and spring. All supernumeraries, either sell to your neighbor who may want, or begin at once to fatten for the butcher, and get rid of before Christmas.

For those that remain, have not only good and sufficient food, but houses or sheds, and dry beds. Food is not sufficient without protection from the weather. High feeding will compensate in a measure for exposure, but it is very wasteful management. Every animal should have *at least* the protection of a shed, closed on three sides. Cattle winter better perhaps in such sheds than in closer houses, but only because of the difficulty of ventilating the latter. The warmer an animal can be kept, the more economically can he be fed, other things being equal; *but clean wholesome air is as necessary as food.* The master should go to bed on a stormy night, with the comfortable reflectiou that every beast dependant upon him, is as comfortable as himself. Such management will break up the whole trade in murrain hides, but it will be a profitable loss, and one that the farming community can well afford.—American Farmer.

## A SIMPLE WAY TO GROW MUSHROONS.

It is a wonder there are not more mushroons grown artificially than there are. They are not much trouble, and every body likes them. We notice in Mr. A. M. Strong's gardener, George Wigance, has turned his early hot beds into a good use, which is, that he spawned them, and has now a fine lot of mushroons showing themselves. The following is the method pursued: Some time in August, after the melons or cucumbers die off, the soil is nicely leveled down, and compressed by treading or otherwise, as closely as possible. For this the soil should be moist, but not wet. It is now ready for spawning, a material obtained generally through seedsmen, but which can be made at home, containing the germs, or as it is familiarly termed, the *spawn* of the mushroon. It is usually in the shape of brick, and before using requires to be broken up in pieces about one inch square. Holes are then made in the soil six or nine inches apart and one of these pieces placed in each hole, with from one to two inches of soil over them. It is again leveled and pressed with the back of a spade, and a pretty good soaking of water given. The lights are then placed on, and well covered, with some material to exclude the heat, to assist which it is necessary to keep this covering occasionally sprinkled with water in very hot sunshine. No air should be given during the day, but a little should be left on at night. No water should be given at any time after, except when the bed is getting quite dry. The more uniformly moist the bed can be kept, without too frequent application, the better will be the result.

The principal difficulty to be encountered, when grown as mentioned above, is, that during the latter days of summer the sun is often very hot, and without considerable care the inside would be apt to get at much too high a temperature. Perhaps for the uninitiated it would be better to make one in the open air, for which it is necessary to prepare a considerable quantity of short horse-manure, the less straw with it the better. Previous to using, this has to be turned two or three times, to get rid of the first violent fermentation. It is then to be built up into a heap nearly triangular, any desired length, with its base some four feet wide. It requires to be pressed together as closely as possible. In about a week, more or less according to the state of the manure, requiring only to be just warm, it should be spawned as mentioned above, and a coating of two inches of soil, (loamy is best,) spread evenly over the whole surface and well pressed down with the spade, using a little water to well plaster the same into a compact mass. Sprinkle over a thin coat of straw, thicker when frosts commence, and the work is done. If built in a cellar, it would furnish mushroons for several months.—E. S., in Country Gentleman.

## WILLOW CULTURE.

Mr. M. D. Earnest, writing under date of Macedonia Depot, Summit County, Ohio, to the Ohio Farmer says: Last April I bought of Geo. J. Colby of Vt., 50,000 willow cuttings. We got through striking them the 15th of May, and now many of the sprouts are six feet long, and all will average about four feet. They will pay well this year, if there should be sale for the cuttings. My ground was only plowed, for the wet weather commenced before I knew that I should obtain any cuttings, but we were particular to put the cuttings clear through the sod, into the soil below, and only a few of them failed to grow. The best time to prepare the ground is in the fall, for most of the land, that is suitable for the willow, is too wet to till in the spring, early enough. It takes about three days' work to stick an acre with the cuttings, it should be done early in the spring, before other work commences, so that it can be done well without costing too much per acre.

From what I know of the willow trade and the cultivation of the willow, there is no doubt, in my mind, that farmers will find it very lucrative to grow them. Most every farmer has some land on which nothing but trash grows, which is just the land for the willow.

Buckwheat Porridge.—Take a quart of rich milk, and after boiling it hard, stir in as much buckwheat meal as will make it of the consistency of thick mush, adding one teaspoonful of salt and a table-spoonful of fresh butter. In five minutes after it is thick enough take it from the fire. If the milk is boiling hard and continues to boil while the meal is being stirred in, very little more cooking will be required. It should be placed on the table *hot*, and eaten with butter and sugar, or with molasses and butter. This is sometimes called a five minute pudding; it is excellent for children as a plain dessert, or for supper. Some add a seasoning of ginger or grated nutmeg before sending it to the table.

Pudding Unique.—A quarter of a pound of raw potatoes, scraped; a quarter pound of raw carrots, scraped; a quarter pound of currants, and the same quantity each of suet, chopped fine, and flour; a little salt and all-spice. Mix all these well together, and make it the consistence of a pudding for boiling, by stirring in molasses; about two tablespoonfuls will be enough, or it may require rather more. This should be put into a greased pudding mold, and boiled two hours. It may be served up either with or without sweet sauce.

No man has a thorough taste of prosperity, to whom adversity never happened.

## FROM MINNESOTA.

We are kindly permitted to make a few extracts from a private letter to a friend in this city, from St. Anthony Falls, Minnesota, which briefly convey an intelligent idea as to the condition of this new country. After mentioning that he had been on a summer tour through most of the Minnesotean wilds, the writer says:

"* * * The absence of the usual rise in the river has retarded the growth of the territory to a considerable extent this year, and many have found themselves on a "wild goose chase" who had anticipated something of a flourishing business. We were to do *this* and *that*, "when the logs come down;" but they didn't come, and hence many of the *this's* and *that's* remain undone. Money has been worth five per cent a month some part of the season, and will probably command three per cent a month for some time to come. Notwithstanding this extraordinary lack of the great lever that moves the world, we have plenty to eat, and the wherewithal to hide our nudity.

"* * * One great curse to a new country has found room to spread on this—the east—side of the Mississippi, and that is, the sale of the public lands to other than actual settlers. While much of our side of El Rio is comparatively in a state of nature, with few of those accompaniments of civilization that are inviting to the New-England emigrant, the west side is being rapidly filled up by *bona fide* settlers, who build school-houses, churches, and otherwise environ themselves with the belongings of their old Yankee home. The residents—other than speculators—of a new country, have good reason to denounce that system of disposal of our public lands which permits any but actual residents to become owners of the public domain. Help us, therefore, to enact the Homestead bill—for, as the old song says,

"Uncle Sam is rich enough to give us all a farm."

[Accompanying this letter was a very beautiful daguerreotype view of St. Anthony Falls, in which connection the writer proceeds to say:]

"We have, in this far-off wilderness, some of the most beautiful natural scenery that ever eyes beheld. I have none of those views which I consider the most picturesque, or that are remarkable for their majestic grandeur, but send you the view immediately in front of my door, from which you see the falls of St. Anthony proper, (there being a small fall, on the eastern shore, which is separated from the main one by two islands,) with the islands, the suspension bridge—with its span of 600 feet—the river, and the miniature city of Minneapolis on the western shore. But the scenery is altogether a secondary inducement, in my estimation, for immigration to this region. The climate is so uniform that pulmonary complaints are successfully treated—in my case entirely eradicated—while more fertile soil can not be found under the convex ethereal expanse.

I was much interested with the paper you sent me—the American Agriculturist—and think it should be in the hands of every farmer throughout the land. * * *"

## WINTER PARSLEY.

Our neighbor, Mr. Wm. Saunders, offers the following valuable hints on winter parsley. This useful herb is much in demand in the culinary department, especially is it so during winter when everything *green* is at a premium. A good supply may be had by planting a glassed frame and protecting it from severe frosts. Those who have the convenience of a greenhouse or grapery, will find the following a desirable method of cultivating a sufficient quantity of roots.

Procure an old flour barrel and pierce the sides of it with holes 1 inch in diameter and about 9 inches apart. Three or more holes should also be made in the bottom for the escape of water. Prepare a quantity of light loamy soil, mixed with a portion of well rotted manure or decayed leaves, and commence filling the barrel by placing three inches of oyster shells, or any other convenient material for drainage; over this place a turf to prevent the earthy particles from mixing with it. Then fill in enough soil to bring a level with the first circle of holes, draw the roots of the plants through from the outside, all but the tops. Proceed in a similar manner until the barrel is filled; then plant the top. When finely grown it is an ornamental object, as well as a useful one. Although an old system, I had never seen it practised, and my first attempt was almost a failure. I found a difficulty in keeping the soil properly moistened, on account of the numerous holes on the sides through which the water escaped without penetrating to the center. This I remedied by building a perpendicular drain in the center of the barrel. Having provided a quantity of small pieces of brick, and charcoal I placed a cylindrical tin tube (an old quart measure minus the handle and bottom) in the center on top of the drainage, and filled it with these materials, drawing it up and filling again as the planting proceeded. This had the desired effect, and allowed an equal distribution of moisture through the soil.

Young plants raised from seed the preceding spring are best; secure all the roots and trim in the leaves close when planted. The stronger and more luxuriant the plants are before winter the better will be the supply. The month of September will be early enough to plant, and the barrel should be kept fully exposed and regularly watered until taken into the house before frost.—Hort.

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"Some Squash."—Mr. Warren Webster, of Gowanda, Cattaraugus county, planted this season, one squash seed, the products of which were: 2 vines and branches, 272 feet in length; 2 do. do., 128 do.; 1 do. do., 245 do.; 1 do. do., 240 do.; 1 do. do., 43 do.; total length, 928 feet. From the above vines were gathered 20 squashes, weighing 828 lbs. The vines and squashes were exhibited at the late fair in that county, and filled a lumber wagon box. We have heard of "some pumpkins," but squash is about a "neck ahead."

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Knowledge is the treasure, but judgment the treasurer, of a wise man.

## STAGGERS IN HORSES.

As is usual at this season of the year, we continue to see and hear much of a disease peculiar to horses during the end of July, August, and early part of September. The affected animals are first of all observed to be weak in the back; in a day or two more they reel greatly with the hind parts, and seem in danger of falling; they are disinclined to lie down, apparently from fear of being unable to rise, and in bad cases there is considerable dulness of countenance, also a partial loss of voluntary power in the fore legs. In the majority of instances, however, the loins and hind legs are almost exclusively effected. The appetite is little impaired, for some days after the complaint has become confirmed; the bowels are rather confined, but there is not any disturbance of respiration, and the pulse, although sometimes fuller than natural, is seldom much quickened. The disease is rarely fatal when proper treatment is employed; in neglected or mistreated cases, however, the brain becomes congested, the animals are unable to stand, get down, grow restless, feverish, and not unfrequently die. The disease is almost exclusively confined to horses which are fed on ripe, green food, such as seeding rye-grass, vetches in full pod, or old rank meadow grass. We have known nine horses on one farm effected at once, while they were feeding on ripe rye-grass, but three other horses standing in the same stable, and fed on other food, remained well. Some persons suppose the disease due to atmospheric influences; this has never been proved as yet, and we know, on the other hand, that change of food will cure or prevent the disease, although atmospheric influences may remain apparently the same. The treatment must be commenced by a complete change from food the animals have been eating, to simple bran diet, and small quantities of good hay. A full dose of aloes must be administered, and tepid water is to be supplied until this has operated. When the medicine has *set*, half ounce doses of sulphate of iron and ginger may be given twice daily. Along with this medicine the horse may take half bran and half oats till the staggering subsides. No bleeding is needed.—North British Agriculturist.

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A Few Preserves.—As most of our readers know, we do not approve of metalic cans for fruit. There is always danger of such cans being acted upon by the acids produced in fruits, however preserved, and the compounds thus formed are generally of a poisonous character. We give, from a Cincinnati paper, the following items, simply to show what is being done in that city:

"At least half of all the housekeepers, in both town and country, have *canned* peaches this summer, and not only peaches, but other fruits and vegetables. We know of one house which has sold 200,000 cans. There are a great many varieties of cans in market, and immense quantities sold. We suppose that 600,000 cans of fruits and vegetables have been put up in Cincinnati and vicinity.

These will hold about 50,000 bushels, of which 40,000 are peaches.

"These cans will average at least 10 cents each, or $100 per 1,000, or in all $60,000 for cans alone. The peaches cost $60,000 also, and the sugar for syrup $20,000! Thus we find the cost for canned fruit to be about $140,000! It will require at least 250 acres of peach orchards to supply the demand for canning fruit! This is for the Miami country only; and if we examine the facts attentively, we shall see that the demand for fruit and the profit upon it will continue for many years."

## HOW MRS. SMITH MAKES WHEAT BREAD.

Mrs. Elliot Smith, of Norway, received a premium at the Agricultural Fair for the best specimen of Wheat Bread. The following is her process for making it:

"One third of a tablespoonful of dry powdered hop yeast was soaked in a tea cup full of milk, 20 minutes, to this one-sixth of a teaspoonful of dry saleratus was added. This was mixed with two-thirds of a quart of new milk, and a sufficient quantity of flour was stirred in, but not molded. It was then left to rise sufficiently for baking, when one tablespoonful of solution of saleratus was well stirred in. It was then baked in a brick oven one hour and fifteen minutes."

How to Make No-Matters.—This is an article of food, which has for many years been confined to the descendants of a single family of this town. Its excellence will commend it to the attention of those housewives who wish to make a good display of culinary skill upon their tables, at the same time having a due regard to economy. The lady who furnishes the recipe has given frequent opportunities of tasting their delicious flavor; and if any are inquisitive, perhaps she might be induced to inform them how the cakes obtained their homely name.

"To three teacupfuls of buttermilk add three tablespoonfuls of rich cream and a small quantity of sugar. Stir in flour until it is of a consistency of paste for dough-nuts. Roll out the size of a large breakfast plate, and fry in lard to a rich brown color.

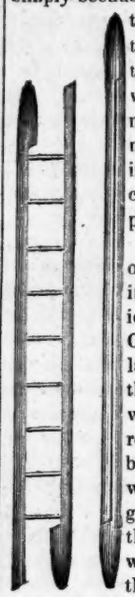
As each cake comes from the fire, cover with apple-sauce made from tart apples sweetened to taste, and spiced with nutmeg or cinnamon, and continue the process till the plate is well heaped."

To Drive away Ants.—A foreign journal recommends chopping garlic finely, and laying it in their usual paths and about their usual haunts. The plan is said to be successfully adopted in the south of Europe. It may be a very good one for those who would not be more offended by the garlic odor than by a whole regiment of ants.

Sealing-wax for Cans.—A very good sealing-wax is made by melting and stirring well together: one ounce of Venice turpentine, four ounces common resin, and six ounces of gum shellac. A beautiful red color may be given by adding one quarter of an ounce, or less of vermillion.

## THE FOLDING LADDER.

It often happens that some of the most convenient implements are little known, simply because the inventors, or owners of the patents, do not belong to that class of persons who have the "faculty" of getting their wares into notice. We could name fifty agricultural implements, which perhaps not one in ten of the farmers of this country have ever seen—and perhaps have not heard of.



Here, for instance, is the cut of a folding ladder—a simple implement, and very convenient to have about every house. One part of the cut shows the ladder opened for use, while the other gives its appearance when closed. The ends of the rounds are encased in a strong brass or iron ferule, through which an iron pivot passes. A groove is made on the inside of the upright side-pieces, so that when one of these is raised up the rounds turn upon pins in each end, and close into the grooves, and the ladder then occupies no more space than a single round pole, which can be set aside in a corner or other convenient place.

A literary friend saw one of these not long since, for the first time, and immediately ordered it for his library-room, to use in getting up to the higher book shelves. When not in use it is set in the corner behind the book case, and is nearly out of sight.

These ladders are very strong, as they are made of white birch, and are so light that a child can handle them, and are usually painted blue or green so as to have a neat appearance. They are made of various lengths and are sold at about 25 cents for each foot in hight.

Toothache Remedy.—The Dublin Hospital Gazette states that diseased teeth have been rendered insensible to pain by a cement composed of Canada Balsam and slacked lime, which is to be inserted in the hollow of the tooth, like a pill. It is stated that such pills afford immediate relief in all toothaches but chronic cases of inflammation. This remedy is simple, safe, and can easily be tried by any person.

Animals kept quiet, dry and warm, will require a great deal less food, and will do much more work, keep in better order, and yield much more profit than those exposed to the inclemency of the weather. Do, kind reader, remember this fact. It is unkind to starve your stock, and, what is a far more grave and potent argument, *it is unprofitable.*

Large Potatoes.—Mr. Joseph Lunt, of Oldtown, has raised this year about 1,700 bushels of potatoes, and among them are some very large blacks, *thirty-two* of the largest of which measure a bushel. This beats all potatoes we have heard of yet.

## IMPREGNATING AND RAISING CARNATIONS AND PINKS FROM SEED.

Persons accustomed to raise seedlings never think of saving the seed from single flowers. I should say that from such seed there would not be a moderately good flower in ten thousand. The only fault with at least two-thirds of our present varieties is, that they are too thin of petals, and will not form a good crown, which is an indispensable property in the criteria of a fine Carnation and Pink. I ask, what can look more meager than the half-double flowers?

For the information of your readers, I will detail my mode of proceeding. I select such flowers as are perpectly double. That such flowers may produce seed, it will be necessary to let every bud assume a glittering icy appearance, take any one half-expanded bloom, and tear it open, when will be seen the apices (anthers) containing the pollen, or dust; take one of these, and, if not already bust, open it, and draw it along the pistils (thread-like terminating horns) till you see some of the powder adhering to them. If this has been properly done, the bloom will close in two or three hours; and if no alteration takes place, repeat it till it does. In two or three days after impregnation has taken place, cut off all the other buds, and remove the plant to a situation where it will get plenty of sun; keep it well supplied with water, and protect the capsule (closed pod) from rain, by placing a square piece of thin board or other material upon the stick, just above it; gather the seed when ripe, and keep it in the pod in a well-corked vial. It will be also necessary to protect the pod from earwigs, which is best done by winding a little fresh sheep's wool round the stick and stem; they will not attempt to pass over it, as it entangles them.

These directions apply equally as well to Pinks, with the exception that the bloom from which the pollen is to be taken must be opened before it begins to expand, or the apices will all be burst, and the pollen gone. —Florista, in Flor. Cabinet.

To take Impressions of Leaves.—Take green leaves of trees and flowers, and lay them between the leaves of a book till they are dry. Then mix some lamp-black with drying oil, and make a small dabber of some cotton wrapped up in a piece of small leather. Lay the dry leaf flat upon a table, and dab it very gently with the mixture till the veins of the leaf are covered; being careful not to dab it so hard as to force the color between the veins. Moisten a piece of paper, or, what is better, lay a piece of paper between two sheets of moistened paper for several hours, and lay this over the leaf that has been blackened with the liquid; press it gently down, and then lay a heavy weight upon it and press it down very hard. By this means you obtain a very beautiful impression of a leaf with all its veins; even the minutest will be represented in a more perfect manner than they could be drawn with the greatest care. Impressions thus taken may also be colored in the same manner as prints.

## NOTES FROM OUR FIELD-BOOK,

(At Stonington, Conn.)

### Mexican vs. Peruvian Guano on Wheat, &c.

We have heard a good deal of the excellence of Mexican guano, and within a year have been entertained with an essay to prove that the true policy of the cultivator is to buy phosphate of lime in this article to apply to his lands. We have been told that the purchase of ammonia in the shape of Peruvian guano was a waste of capital. This unique and ingenious pamphlet has already been noticed in our columns, and we are now prepared to furnish the notice which mother Earth has taken, the past season, of the article in question.

A dealer in guano kindly furnished us with a bag last spring, and as he imported it on his own account, and had 400 tuns of it for sale, we presume that he sent us as good as he had, that it might give a good report of itself. It was said to be from Maria Island, and was accompanied with an analysis from Dr. Chilton, stating the proportion of its ingredients, and was advertised as an article fully equal to the best Peruvian guano. It was evidently from a climate where rain falls, was moist, and had much the appearance of stump earth. There was no odor of ammonia about it.

We selected an old corn stubble for the experiment; measured off five-eights of an acre, and on the 23d of April sowed it with Black Sea Wheat. The soil was a gravelly loam not in very good heart; so that it was in good condition to show the action of these fertilizers. One half of the piece was dressed with a bag of Peruvian guano, weighing 145 pounds, and the other half with a bag of the Maria Island guano of about the same weight. The land was well plowed, and the seed and manure worked in with the cultivator and the harrow. About a week after sowing, the whole was dressed with two horse-cart-loads of oyster-shell lime.

The seed came up well and the whole piece looked promising. As it was the first piece of wheat grown in the neighborhood for twenty years, it had the full benefit of close observation, and the whole category of wheat evils was prophesied upon it, from the blast to the weevil.

The portion of the field dressed with Peruvian guano soon showed its superiority. The line where the dressing began was distinctly marked by a deeper green and a larger growth; and this difference was maintained up to the ripening of the grain. This part of the field was so heavy that some of it lodged. There was a larger growth of straw, longer heads, plumper kernels, and more of them. We had to reap the whole of this part of the field, while the most of the other was easily cradled. The Mexican guano was so manifestly "no where," that we did not think it worth while to accurately measure the yield of straw and grain upon each part.

The venders and chemists may speculate as they please upon the value of the guano from rainy climates; cultivators will hardly receive any speculations that are not confirmed in the laboratory of the soil. We have seen enough in our experiment to satisfy us of the economy of using Peruvian guano, where we go off of our own premises for fertilizers. If there is economy in using the other varieties, it is a problem yet to be proved.

Our experiment goes plainly to show that

WHEAT GROWING IN CONNECTICUT

is at least a possible thing. The yield of this plot of ground was ten bushels of handsome wheat, as good as the seed we sowed. We threshed it with the flail to save it for sowing, and there was at least two bushels left in the straw. Had the whole been dressed with Peruvian guano, the yield would have been twelve bushels, or at the rate of twenty-four bushels per acre. Seed wheat is now selling at $2.50 per bushel, which make $60 an acre for the grain, and the straw is worth $10 more. Seventy dollars an acre, we think, is much better than the average product of our New-England farms.

We are by no means certain that the time has not already come, when wheat can be profitably raised again in New-England; and have its regular place in our rotation of crops. We see in the discussions among the New-Hampshire farmers, that it is thought the wheat crop of that State will meet one half of the consumption of its population. Very fine crops of this grain have been gathered this season in Vermont and western Massachusetts. Western Connecticut has been growing wheat cautiousiy for a few years past, and all along the seaboard, from Maine to Long-Island Sound, we hear of successful experiments. Reliable authority gives the wheat crop of the single town of Southold, L. I., as twenty thousand bushels last year. It is also grown on Gardener's Island, where guano is used and fine crops are realized. The eastern demand for seed wheat, we think, will be brisk next spring.

## FARMING IN HALLOWELL, MAINE.

W. P. A., in renewing his subscription for the American Agriculturist and the Times, closes his letter as follows:

As a general thing, there are nothing but ordinary, and I might almost say shiftless, farmers in this section of the country. They cultivate, by a vast quantity, more land than they can cultivate properly. They have but little fertilizing matter, and that they spread over a large space of ground, and the consequence is they get but poorly remunerated for their trouble; whereas, if they would put it upon half, or even one-fourth of the space, they would probably get as much, with far less labor. Too many are contented to just get crops enough to keep them alive, and a little more, and when their farms run out and they get discouraged, they pull up stakes and are off for some more productive quarter, even to the far west. Thus it is that Maine becomes depopulated thro' neglect or a want of careful, thorough tillage. We have as good land here in Maine as any where, and if farmers would only study the nature of their soils, what they require, and the best manner of administering it, they would have less cause to complain. The eyes of some are already beginning to open, but it is difficult to turn from the old beaten track and commence a new process.

Just such a paper as your's is needed by all our farmers, and if they would only follow out a great many of its ideas, their condition would be every way improved.

## GROUND AND UNGROUND—COOKED AND UNCOOKED FOOD.

In a commuication from the Society of Shakers, at Lebanon, New-York, in the Patent Office Report, we find the following upon the relative value of ground and unground, cooked and uncooked corn for feeding and fattening cattle, &c.:

"The experience of more than 30 years leads us to estimate *ground corn* at one-third higher than *un*ground as food for cattle, and especially for fattening pork; hence it has been the practice of our society for more than a quarter of a century to grind all our provender.

"The same experience induces us to put a higher value upon cooked than upon raw meal; and for fattening animals, swine particularly, we consider 3 of cooked equal to 4 bushels of raw meal.

"Until within the last three or four years our society fattened annually for 30 years from 40,000 to 50,000 pounds of pork, exclusive of lard and offal fat; and it is the constant practice to cook the meal, for which purpose 6 or 7 potash kettles are used."

The Shakers are a close-observing, calculating people, and go in for the practical realities of life, and therefore, in the economy of food, must be presumed to be good judges.

HONEY.—Those who wish to see and taste really good honey, must visit Messrs. L. & R. H. Thorn, at No. 5 Washington Market. We called there the other day to make our usual annual examination of the sweet stores furnished by M. Quinby, of Palatine Church, N. Y., the well known author of the "Mysteries of Bee-keeping Explained." Mr. Q. gives the very best evidence that HE, at least, understands the secret of producing good honey, in the fact that he yearly sends to the Messrs. Thorne more than *four tuns!* (8,000 lbs.) of the best honey to be found in this market. That it is the *best*, is proved by the extra price it commands—31½ cents per pound wholesale, gross weight. One advantage possessed by this honey, is found in the simple, cheap, and convenient cases in which it is sent to market. For the form and construction of these honey cases, see page 120, Vol. XII, of this journal.

We notice that most of the honey in market this fall, from various parts of the country, is less white and clear than usual. We suppose this was caused by the long rains prevailing during the honey-making season the past summer.

It is a noble science to know one's self; and a noble courage to know how to yield.

# Horticultural Department.

## SHADE TREES FOR CITIES, VILLAGES AND COUNTRY RESIDENCES.

The recent frosts have fairly stripped the deciduous trees of their foliage, leaving them now just in the right condition for transplanting; and before the ground is closed up by freezing we should give attention to supplying our streets and grounds with shade trees, if this is not already attended to. Perhaps the most fruitful cause of delay, is the difficulty experienced by these fitting of new grounds, in dividing what are the best trees for them to get. To assist such we append a few extracts from our own note book, and we may add that these notes are not drawn from our own observations only, but are in harmony with or directly modified by the opinions of some of the best cultivators of shade trees in our country.

A smaller class of trees is required for the streets of cities and compact towns than for parks, and for more thinly settled villages, and the grounds surrounding rural residences, where there is abundance of room.

For compact streets, we recommend the following as among the best: Oriental Plains, Paulownias, Catalpas, and the Silver-Leaf Poplar.

The Oriental Plain is a pyramidal tree, with clean stem and foliage, is scarcely exceeded in the rapidity of its growth, and has as yet no insect enemy.

The Paulownia is of very rapid growth, has a large leaf, often two or more feet in diameter on young trees. We measured some of them the past season that were over two feet in diameter. The size of the leaves diminish with the growth of the tree. These leaves resemble the ordinary Palm leaf fan. The tree is perfectly hardy, though introduced originally from the climate of Japan; and it is chiefly remarkable for the exceeding beauty of its flowers, which, before the leaves appear in the Spring, cover the trees in large clusters, from six to nine inches in length. The flowers are of a rich purple color, and fill the whole air around them with a fragrance. This tree bids fair to supplant the Ailantus, as it grows quite as rapidly, excels it in many things, and is without its objectionable features. At this season the buds preserve a beautiful appearance.

The Catalpa is more generally known, and need not be described. The only objection to this tree is that its "pods" or seed vessels furnish the rudiments of cigars to "Young America."

The Abèle, or Silver Leaf Poplar, grows as rapidly as any one of the others. The upper side of the leaf is of a rich dark green, the under side a silver white, and the contrast of these colors produces a pleasing effect upon the eye, when the leaves are set in motion by the wind. It is, however, only fit for paved streets, on account of the multitude of suckers it throws up from open ground.

For open streets and grounds the following list comprises the most choice collection; we place first in order those which we consider the best, all things taken into account; Silver-leaf Maple, Oriental Plain, English and American Elms, Tulip-trees, Sycamore Maples, Sugar Maples, Pin Oak, Scarlet Oak, Burr Oak, Catalpa, Linden, Deciduous Cypress, Liquidambar or Sweet-gum, Laburnum, Cucumber Magnolia, Kentucky Coffee-tree, &c. This list embraces all those recommended for streets, except the Silver-leaf Poplar, which is left out for reasons given below. We omit the evergreens, as we recommend setting these in spring, unless it be done early in autumn. Most of the above trees can be obtained of first-class Nurserymen, and they may all be set in spring, but we prefer this season of the year, if it can be done before the ground becomes solid.

The Silver-leaf Maple in its foliage somewhat resembles the Silver-leaf Poplar, and is by many persons preferred to it. It is the most rapid growing of the Maples.

The other Maples are well known as strong robust growing trees, with thick, dense foliage, holding on to late in the autmn; and they are among the most desirable of shade trees.

The Elms are well known—the American for its gothic arch, and the English for its dense foliage.

The Oaks are of a more slow growth, and are well known. The Pin Oak is the finest of them, on acconnt of its pyramidal form, and glossy foliage.

The Linden, (bass-wood,) is known for its symmetry of form, and the Mountain Ash for its beautiful red berries.

The Deciduous Cypress has a soft feathery foliage, of a delightful light green, and very unique in its character. We yesterday noticed one of them in front of the residence of Mr. S. B. Parsons, of Flushing, L. I. The foliage at this season, is of a rich maroon color and contrasts finely with the green terrace near it.

The Liquidambar, or Sweet-gum, has a star leaf, which assumes a beautiful red tint in autumn. This is one of the finest *native* trees, and is not half as well appreciated as it should be.

The Laburnum is noted for the abundant clusters of rich yellow flowers with which it is clothed in June.

The Cucumber Magnolia is a tall growing tree, with large leaves and symmetrical habit.

The Kentucky Coffee is a handsome tree, its light foliage somewhat resembling the Locust. It produces a bean which was used as coffee by the early settlers. (The flavor of the fruit from the cultivated tree is, in our opinion, *not* equal to that of Mocha or Old Java.)

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A Comical Toast.—The following toast was given at the agricultural fair at Barnstable last week: "*The Farmers of Cape Cod*—Although they may sometimes be in doubt, from the peculiar nature of the soil, whether they are digging for clams or potatoes, they have always, notwithstanding, a comfortable assurance that they shall find the one or the other."

## RAISING FRUIT PROFITABLE.

Much has been written upon the profitableness of fruit culture, yet we think this matter is generally too much neglected and its importance too little appreciated. One reason of this is, that relatively quite too much attention has been bestowed upon raising fancy fruits. Almost every one who has written upon the subject has devoted himself to describing a new variety, or to the best means of raising a small quantity of a great number of fruits. Take apples, for example. We have in our agricultural and horticultural journals chapter upon chapter describing the hundreds of varieties, while little is said upon the importance of producing an abundant supply of some of the leading and long established kinds, such as the Greening, Spitzenburg, Baldwin, Newtown Pippin, Seek-no-further, &c. If public attention has been rightly directed in this matter, why is it that even at this present time, as well as in all past seasons, there is and has always been a scarcity of these fruits in the market, even when they bring prices four times more than would amply pay for their production?

No one can sit down and carefully estimate the cost of raising apples, compared with the amount yielded by other products from the same ground and labor, without being convinced that no branch of industry is so highly remunerating as this, and yet few enter into it as a business.

If we take fruit at its lowest market price, the ground occupied by one apple tree can in no way be made to yield for the same outlay more than a fourth of the value that can be gathered from the tree, even if the fruit be used for feeding only.

In addition to the causes of this state of things above mentioned, two others may be given. First, it has been feared that everybody else was going into the business; and second, the time required to raise a bearing orchard has led most persons to seek for a more immediately remunerating business.

To the first, it may be said that when we take into account the value of fruit for feeding stock, there can be no limit to the quantities that may be profitably raised for home consumption; and to the second, that the cost of rearing an orchard is very trifling, before it begins to yield returns. The ground occupied by growing trees is not lost nor materially injured for other purposes; on the contrary, as we know by profitable experience, trees will flourish quite as well on ground that annually produces hoed crops. We raised a thrifty orchard of six acres, containing three hundred trees, and yet every year gathered from the same ground large crops of corn and potatoes, alternately. The trees thrived all the better from the constant cultivation of the ground around them. A few loads per acre of good manure was annually applied, and the corn and potatoes gave a good profit, over and above the entire expense of cultivation, in addition to the cost of plants, grafting, and the annual care required by the trees. At the end of eight years, our orchard was producing an annual

crop of more than a thousand bushels of choice apples, requiring only to be gathered and taken to market, and yielding a *clear profit* of more than fifty dollars per acre. In this orchard we cultivated but six varieties—the Harvest apple, August sweet, Fall pippin, Spitzenburg, Greening and Seek-no-further. Each, in its season, found a ready market, at remunerating prices. The produce of that orchard of six acres, now eighteen years old, is to-day worth more than eighty dollars an acre, annually, for feeding purposes only. The soil was not unusually favorable; indeed, it was so rocky that it could with difficulty be tilled except with the hand hoe.

The process pursued was very simple. The natural trees raised from seeds by ourselves, were planted out and allowed to grow a year or two, and then grafted upon the stock or larger limbs; many of them were grafted by inoculation, and a few days spent each year in pruning, has been the chief care required by the trees. Each spring they were formerly well whitewashed and the leaning trees tied up to a stake. To guard them from being barked by the traces, four white oak stakes, split out like rails, were driven around the trees. When first set out all the trees were leaned a little to the southwest, so as to brace them against the winds prevailing from that direction. There are few or no soils that will not produce apple trees with a little care in manuring. A cart load of stable manure applied once in ten years, to a plot of ground ten feet square—no matter how poor—will fit it to support a good tree.

An apple tree that costs less than two dollars to plant and rear it, will for many years yield, without after expense, an average produce of ten bushels a year, worth for feeding alone, two dollars a year; and fifty to eighty such trees may stand upon a single acre.

While on this subject, we will mention a young orchard that we visited last spring. Several hundred trees planted upon a soil so barren that it would barely yield grass, but the trees were quite as large and thrifty as any we have seen of the same age. We learned that the only manure used was about a quart of urine each, annually, though when first planted, a large deep hole was dug for each tree, and filled up with surface soil, mingled with a small quantity of chip manure.

GATHERING APPLES AND PEARS.—It is wrong to take the whole crop off the trees at once, as the fruit will vary in forwardness; the choicest kinds should therefore be looked over two or three times, taking each time those best ripened. Again, many kinds of apples and pears (early ones especially), should be taken in a few days before they appear ripe, or they lose their briskness, and eat mealy and insipid. Let all the fruit intended for keeping be hand-picked, and laid carefully on the shelves of the fruit room; they may be placed three or four thick if room is scarce, but will be better laid singly. As the fruit is deposited in the room, leave open the door and windows, day and night, to allow the moisture which newly-gathered fruit will give off, to escape. Late plums—as the Golden drop, Imperatrice, and the Quetch—may be preserved for a long time, if gathered before they are fully ripe and suspended in a dry, airy room; or they may after drying them for a day or two, be wrapped in tissue paper, and placed on the shelf of the fruit-room. The old bearing wood of the raspberry should now be cut away, to admit light and air to the canes for next year, which should at the same time be thinned out. Where new borders are about being made, now will be the time for commencing them, and preparing the materials for the purpose—dry, sound, healthy loam and rubble stone, and finer waste to cover over with, should be in readiness.—Florist.

## PROGRESS IN PEAR CULTURE.

We have just (Oct. 19,) taken a trip to the fruit stalls, stores and confectioners of Broadway, to make note of their contents. There is abundannt evidence of a bountiful fruit harvest, and that the labors of our horticultural societies, of amateur fruit growers, and of the press, are having a very happy influence upon our gardens and orchards. We have never seen so much fruit in the market or so great a variety. Grapes are very abundant, and Dr. Underhill is in the ascendent from Chambers-st., to Astor-place. They are very fine, and retail for eighteen cents a pound. They have usually sold, we believe, in former years, for a shilling a pound. The demand for them doubtless increases as they become known in the market, and he finds no difficulty in marketing his whole crop at any reasonable price. Any one who knows good fruit, would prefer to send for Underhill's grapes at eighteen cents, rather than a chance article at a shilling. This is a very encouraging feature in fruit growing. The more you enlarge the cultivation of a first rate quality of fruit, the more remunerative does it become.

Late varieties of plums are still in market and apples are very abundant and beautiful. We noticed with pleasure the interprise of the salesmen in putting up a variety of fruits in a small basket, just the thing for a present or for the dessert, at so much per basket. The peaches are nearly gone, but the few on sale are very fine.

The most striking feature of the fruit stores, is the large increase in the varieties of pears offered for sale. Formerly the only varieties noticable were the Virgalieu and Seckle, beside the common cooking pears which were nameless. For a few seasons back one could get, at Thompson's and at Taylor's, the Duchess d' Angouleme, and the Beurre Diel, in their season, for a trifle less than their weight in silver. Boston was the only market where pears of the finer varieties could be purchased by their names. We noticed this morning at a number of places, besides the varieties mentioned, the Flemish Beauty, the Napoleon, the Louise Bonne d' Jersey, the Onondaga, and other varieties, and at prices that did not taste of the silver. These are cheering indications that our labors and those of kindred journals are not without their influence upon the country. They are making fruit far more abundant and at prices within the reach of all. We hope to see their influence extended until the luxury of good fruit is found upon every man's table within our borders.

## KEEPING APPLES FROZEN.

The injurious effect of frost upon fruits, roots, &c., results, we suppose, from the expansion of the fluids contained in them, which tears and destroys the organic structure. The different varieties of fruits and roots from peculiarities in their structure, and from the greater or less amount of fluids contained in them, may suffer unequally from freezing, but we have had little faith in the various statements to the effect that potatoes, for example, left in the ground over winter have come out sound in the spring after having been frozen solid. We have never observed any direct evidence of this in our own experience, and have supposed that where potatoes have been dug up sound at the close of winter, it has been in some structure protected by a covering of snow or other means. We have seen apples of tough, dry varieties hanging upon the trees in February and March, which were apparently sound but, upon a closer examination showed their internal structure to be materially disorganized, while their flavor—if they ever had any—was destroyed or essentially changed. With this experience and these views of the matter we are at a loss to account for the statements of Dr. I. M. Grosvenor, in the Boston Cultivator, to the effect that several varieties of apples were not harmed at all by freezing and thawing, but even keep better for being frozen. We give Dr. G.'s. statements in full:

When we commenced keeping house, it was in the Dr. Haseltine house, which was old and uncomfortable, and the cellar no better for keeping out cold than the house. In the fall, I laid in a supply of apples, consisting of Green Sweets, Greenings, and a *red* apple which has become extinct or nearly so, although much better for the table than some new varieties. They were carried into the chamber, as it was supposed they would keep better there than any where else till cold weather. About the 10th of November, we were absent from home two or three days, when on our return, we found our apples all very badly frozen, the weather having become very cold while we were gone. We concluded our apples were all spoiled, till the weather became so warm that they were again thawed, when it was found that the Green Sweets were not harmed at all, but the red apples were soft and discolored—good for nothing—and the Greenings nearly as bad. The Sweets were carried to the cellar, where it was supposed they would be safe, but soon the cold returned and our apples were again frozen as bad as ever, and we came to the conclusion that they might as well have remained in the garret. As they could not be used, they were left to see what effect warm weather would have upon them, and as the winter was long and severe, and the cellar better adapted to keeping out heat than cold, the apples remained frozen till April, when they

were examined and found to be in good condition, except being wet with condensed vapor. They were wiped dry and returned to the barrels, and the result was that we had a plenty of apples till apples were again ripe. Since that time I have taken no care to keep any more from freezing than were wanted for present use or maket, and have had to keep my Bean apples till the last of April or first of May, not being able to market them sooner, as they were frozen, and have had them in good condition at that time, although you know that it is quite out of season for them.

When they are frozen, they should not be handled or disturbed till they are all thawed again. During the past winter, our's have been so much frozen that we have been short of those fit for use. They remained longer frozen than usual, and they came out quite as well as usual. Russets have kept finely, and I do not think they will average half a peck to a barrel of defective ones, and Green Sweets are about as good. My Baldwins were all sold in the fall, except a few, and some other varieties which I kept for family use, all of which were more or less frozen, and all have kept remarkably well. My cellar is large, and that part in which apples are kept is exposed to the weather, a large door opening to it from without, which is only a single one, and as the mortar and wood have both suffered from time and frost, no light is necessary and the *cats* have room to pass out through the cracks, which would have been stopped if it had not been for the supposition that our apples were safer than if they were.

Thus much for my *experience*, and I have come to the conclusion that apples will keep longer sound if frozen than if not; that they are not injured in the least; that they should be kept where least likely to feel the change of temperature, whether in a cellar or elsewhere, and the drier the better; that while frozen they can not rot, and are not likely to decay any the sooner for having been frozen.

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*For the American Agriculturist.*

Long Scarlet Radish—*A Query.*—Having received a fine quantity of imported seed, and finding it perfectly pure, I tried to save some new seed from it. It was sown on the 28th of March, and produced splendid roots, but showed no disposition to seed till the latter part of June, when it threw up finely and showed large heads of bloom, but would not perfect its seed, and after exhausting the roots the tops rotted down.

Never having such a failure before, I do not know to what to attribute it. The ground was rich and well prepared, but I could not get one seed, while that received from your city produced admirable seed.

The buestion is, whether the above is the usual effect of the climate of this State, upon English seed?—W. Summersbey, Richmond, Virginia.

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The deepest waters move most silently; the hottest fires have the smallest flames; and the spheres that have the swiftest motion move without noise.

## PRESERVING PLANTS IN WINTER.

BY H. B.

Nothing has more discouraged the cultivation of flowers than the supposed difficulty of preserving them in winter; and as this apparently formidable obstacle disappears as the amateur acquires experience, I shall endeavor to detail some of the methods I have employed, and their successful results. Of course, my remarks are intended for those who garden on a small scale, and who have not greenhouses for winter protection. At the same time, the principles of the treatment about to be described will apply to the largest collections, and may be of service to all whose object is to secure the beauties of the spring and summer from the desolations of winter.

Those whose stock of flowers consists of a few greenhouse plants, which they have cultivated in windows, have a very easy task to perform in protecting their favorites, as far as frost is concerned; for a very small amount of care will suffice when the plants are in a dwelling-house. The temperature of an occupied sitting-room will always be sufficiently high to keep out the frost in the day time, even if the plants are close to the light, and they may easily be removed in the evening to that side of the apartment which is furthest from the window. If the amateur has a large number of plants (young Pelargoniums, for instance,) arranged on shelves close to the window, to remove these would be troublesome, and they may therefore be allowed to remain in their places in ordinary frosty weather, the precaution being taken to interpose the blind between them and the window. I once preserved 200 plants in good health through a severe season, in a room having only one large window, which admitted a good deal of sun. Some of the pots (which were small 60's) were placed on narrow shelves, ascending to the top of the window, and as near the glass as possible; the others were set on a table. An Arnott stove was lit when required either by very damp or very cold weather; air was given as often as possible; the whole collection was often moved, that light might be equally dispensed, and advantage was taken of mild rains. I succeeded in preserving the whole, without any sickly growth being developed, and was rewarded by having an abundance of strong plants for bedding out in the spring. Most of these were Pelargoniums.

Many plants may be more summarily dealt with. Cactuses and Scarlet Pelargoniums will do well in any dry cellar, provided no water is given them. The latter, when taken up from the flower-garden, I have preserved by shaking off the soil, and hanging them, root upwards, in a shed or coach-houses, from which frost could be excluded. In the spring they were found in full possession of their vital powers, and on being trimmed and potted, made handsome plants. In all the cases to which I have alluded, it will be seen that care and forethought are the requisites demanded of the amateur. Attention must not be remitted for a day. I have always found that more plants are lost in the winter by damp than by frost. Much water, therefore, must not be given; indeed it should be altogether withheld so long as the plants do not flag. A plant in a moist growing state will yield easily to frost; while, if it had been kept dry and dormant, its powers of resistance would have been great.

But no plan of preserving plants from frost, independent of a greenhouse, is equal to a well-regulated pit or frame in the open air. I have tried this in various ways and always found it succeed, if properly attended to. At the present time, all my plants intended to be put into the borders next year, or brought into the house, are in a large two-light frame, the management of which I will endeavor to describe. The frame stands about two feet from the ground, sheltered by a south wall, on an exhausted hot-bed, on which Cucumbers were growing in the spring. The mold of this bed having been kept from rain in the early autumn, at the close of October the pots were sunk into it up to the rims. A double light was then put on, by which wet and frost are more effectually excluded, and in the following December the soil around the pots was quite dry. Around the frame long stable dung is piled up about eighteen inches in width, and level with the top. Over the whole an old carpet is thrown when necessary; and I have no apprehension that I shall lose anything if dampness does not defeat my efforts. Every day when it is not frosty, air must be freely admitted, and dead or mildewed leaves must be carefully removed. When frost sets in, two or three extra mats may be laid on, and the whole kept on till a thaw takes place. On no account remove the coverings until at least a day after the frost is gone. This is a very important rule, for the admission of light may be fatal if any of the leaves should be frozen. When plants are found frozen in windows, &c., let them thaw in a dark cellar, and they will often sustain no injury. In this way I have preserved Pelargoniums, Calceolarias, Verbenas, Hydrangeas, &c.; and the freshness of the whole collection after the winter has passed away has always been encouraging. Ordinary greenhouse plants may therefore be preserved by every one during the hardest winter.—Horticult.

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*For the American Agriculturist.*

## GARDENING IN VIRGINIA.

The climate of this State differing materially from that of New-York, the routine of gardening is necessarily different in the culinary department. Here we can safely put out cabbage, lettuce, onions, and many other vegetables, to stand the winter. Cabbages planted in November produce first-rate heads in the following May, and if attention be paid to securing the proper kinds, a supply may be had in July of those planted in November. For example, the Enfield, Large York, and Flat Dutch, sown and planted out at the same time, make a fine succession—the Enfield coming first, followed by the Large York. All these kinds stand the winter well, and make finer cabbages than those sown on hot-beds in early spring. Cauliflowers having the protection of a south fence stand the

winter very well, and most kinds of lettuce, if properly planted, are unharmed through the winter. We are thus enabled to produce a fine supply of early vegetables. Peas and other spring growing vegetables will allow of being sown much earlier than can be done in the northern States.

But there are many difficulties to contend with, one of the greatest of which is, the dry weather that often prevails just at the proper season for sowing seeds. We experienced a drouth in August and September last, which has had a peculiar effect on the Norfolk Globe turnip, turning the hearts perfectly black, although to outward appearance they are very fine turnips. It has not had the same effect on the White Globe or Red Top, which are really good turnips.

I have tried guano with turnips, but the bulbs are hard and coarse, and even two hours boiling will not make them eatable. Cow manure, with the same seed as the former, produced splendid turnips, juicy and very tender. Those sown on corn land, without manure, are altogether superior to those sown with guano. My own opinion of guano is, that if applied for four successive years to all crops taken off, the ground will not afterwards produce a crop of buckwheat. It is one of the most admirable manures that can be applied, if care be exercised; but if applied to ground constantly, as many are now doing, without change, it is capable of spoiling the best ground until after leaving off the use of it for two seasons, and applying other manure. W. Summersbey.

## THE DWARF PEAR QUESTION.

We have repeated and almost constant inquiries in relation to the value of the pear on quince stocks. Are dwarf pears going to answer? Are they not a humbug? Are they as good as standards? Would you rather have a tree on pear or quince root? These are some of the questions that are continually asked; and the conflicting answers that are given do not help to clear up the question.

Yet it is a very simple one, and very easily understood when cleared of the fog which partial observers and interested persons have thrown around it. To say which is best under all circumstances, would be like attempting to answer the question, 'Do you think the watermelon as good as the strawberry? Shall we not confine ourselves hereafter to the best of these two, and discard the other as a humbug?'

Dwarf and standard pears are each excellent in their places. The standard pear, as a general rule grows to be a much larger tree, requires more time, needs more room, ultimately bears more per tree, will endure more neglect, and in most cases live to a greater age. The dwarf will come sooner into bearing, will occupy less space, and will not bear neglect, but requires good cultivation. We are not sure but the last quality is a positive recommendation; for planters certainly need the stimulus of necessity to induce them to take better care of their trees. A standard will indeed grow and bear under ordinary circumstances; but give it the best chance, and the fruit will be so much improved, as sometimes to be scarcely recognized. The dwarf is emphatically the tree of the garden, where two hundred may be planted on a quarter acre, instead of but twenty-five standards, and where no difficulty exists in giving them the best soil and treatment. Those who are about occupying new places, may secure for themselves a supply of fruit in two or three years by planting three year dwarfs; and pomologists may get the fruit of new kinds the first or second year.

One leading reason why some have pronounced dwarfs a failure, is the attempt to raise too many kinds on the quince. There are a few sorts that are entirely at home on this stock, and are always seen in a flourishing state, under anything like favorable influences, among which sorts may be mentioned Louise Bonne of Jersey, Duchess of Angouleme, Glout Morceau, and Vicar of Winkfield, trees of which, twenty or thirty years old, are now productive and vigorous, and will probably live to a hundred. Some of these, and especially the Jersey and Winkfield, seem to grow well on almost any kind of quince. But all do best on the French stock, and this only should be used. The Angouleme appears to be the hardiest dwarf under neglect. We have just examined an orchard of these, about nine years planted, which until the present year, had been almost totally neglected for five or six seasons, and enveloped in weeds and grass, and growing on a hard stony soil. The present season they have been cultivated but not manured, and they all show a thrifty appearance, and are bending under their load of magnificent fruit. The trees are about two and a half to three inches in diameter, and stand erect, although allowed to run up as standards, without pruning. They bore very little while neglected. As a proof of their superior hardiness, all or nearly all of those originally planted are flourishing, while other dwarfs, interspersed, have nearly all died out from neglect.

There are several sorts of the pear that usually do well and live long on the quince, if enriched and cultivated annually, but not otherwise.—Country Gent.

## COLLECT LEAVES FOR LITTER.

After the harvest is over, and before the snows cover the ground, a day or two spent by the farmer and his hands in collecting the fallen leaves of the forest will be productive of a good store of excellent litter, and the expenses amply repaid. A good collection of such materials is not always made in the fall by those who could do it easily. Indeed, this prudent foresight for litter with which to bed down cattle, horses, and other stock, during the winter, is not sufficiently practised among us. It not only insures a great amount of comfort to your cattle, by giving an easy and warm bed, but it saves, indirectly, much fodder, in consequence of the warmth thus obtained—cattle eating much less when they are kept warm and cleanly.

The leaf harvest, then, is one of importance to the farmer, if he will avail himself of it. A calm day or two spent in this business, with his boys and oxen, and hay rack, will enable him to get together a large pile of these fallen leaves, and if stowed in a dry place he will experience the good effects of them in the improved condition of his stock, compared with those which are suffered to lie down, and perhaps be frozen down in their own filth. The fertilizing material of leaves also adds essentially to the enriching qualities of the manure heap. Gardeners prize highly a compost made in part of decomposed leaves.

As the leaf harvest is the last harverst of the year, let it be attended to, when its time comes.—Maine Farmer.

## TREE PLANTING.

We notice among the munificent bequests of Elliott Cressen, a legacy of $5,000 to be employed in planting trees in Philadelphia. There is something touching in this gift. It is fragrant of good taste and friendly feeling. It seems to express gratitude for the comforting shade of some old tree under which the weary philanthropist had meditated his schemes of usefulness; and of considerate interest for the health and pleasure of future generations, who are to people the city of his birth. And when monuments of marble and of bronze shall crumble, the broad arms of the elm and the oak shall stand out against the sky as the befitting memento of the liberality and the taste of the tree-loving Philadelphian.

Every one should plant trees. No object is more beautiful than a spreading elm, or a lively evergreen; none more productive than the apple or the luscious pear. Half the labor bestowed on a single crop of potatoes, would originate an orchard, the product of which in a few years would be equal in value annually, to the potato crop, yet with but little labor beyond the harvesting. A fortnight's toil in the spring or autumn, in transplanting choice fruit-trees to the roadside, or tastefully grouping them on the lawn, will ultimately add more to the value of the place than twice the time employed in building or fencing. For their own comfort, for the sake of their descendants, for the taste and improvement of the country, plant trees—let everybody plant trees.

That bald, naked church, tasteless, treeless! Who will have compassion on the worshipers, and surround it with trees? That district school house, bare and unsightly; who will interest the boys in planting and protecting shrubs and trees that will make it an attractive and beautiful spot? Those verdureless villages, with their houses thrust upon the street—who will distribute honey-suckles, and Virginia creepers and prairie roses, that they may be turned into civilized habitations?

There is a softening, humanizing influence in horticulture and tree-planting, that we could wish were more general. There is too much danger of the gross and sensual and selfish in our national character; and while our reliance must be on religious and educa-

tional influences to correct this tendency, we believe that good and only good would come of the love for trees and flowers, and the cultivation of both. It may be blessed in leading the heart up to the love of the Rose of Sharon and the garden of God.—American Messenger.

## THE CLOVER SEED CROP.

We have, on a previous occasion, stated that great anxiety existed in reference to the fate of the growing crop of clover-seed in this State and Indiana. We have made every exertion to ascertain what has been the fate of the crop, and are sorry to announce that it has proven almost an entire failure.

We have letters from various points in this State and Indiana; some of them say there will be a little, but fully two-thirds of our correspondents say the crop in each of their localities is an entire failure. The after-growth was very luxuriant, too much so to yield well, but the wet weather cast it down, and it partially rotted on the ground before it was cut, as a general thing, and after it was cut, the weather so injured the remaining seed, that it could not be saved, except in comparatively few instances. We feel perfectly satisfied in saying that the entire amount secured in this State can not be more than one-fourth the average crop; and the same may be said of Indiana.

The stock of old seed in this market is exceedingly light, and is in a few hands.

By the last steamer from England we are advised that the crop in that island is a total failure; and in London, Baring says, an active demand has arisen for old. We have no authentic intelligence as regards the crop in the eastern States, but we are disposed to believe, from what little information we have, that it is better than it is in the western States.

The stock of old seed in New-York is said to be a moderate one.—Price Current, Cincinnati.

LITCHFIELD (CONN.) STOCK.—The Messrs. Hurlbut, of Winchester, the pioneers in the raising of Devon cattle in that part of the country, were represented at the Boston cattle show. The Mountain County Herald says:

In answer to an inquiry of ours, Mr. Robbins Battell, of Norfolk, writes us that he has received one hundred and seventy-eight dollars in premiums upon stock exhibited at different agricultural shows the present fall. Mr. Battell further informs us that a circumstance which gave him peculiar pleasure at the recent National Show at Boston, was the fact that "The Bull (3 years old and upwards) that took the first prize and was acknowledged far superior to any other upon the ground, although it had several imported bulls to compete with, was bred by the Messrs. Hurlbut, and called '*Winchester.*'" It was exhibited by Mr. De Forest of Dutchess Co., N. Y.

Heavy carrot crops for cattle will soon return carats of gold.

## Book Record.

*All Books received—if not unworthy of notice—will be announced in this column by title, as soon as received. Further notices or reviews of Agricultural and Horticultural Books will be given—when their striking merits or demerits require it—after we have had time to thoroughly examine them.*

TRANSACTIONS OF THE NEW-YORK STATE AGRICULTURAL SOCIETY for 1854, with an abstract of the proceedings of the County Agricultural Societies.

We are under obligations to the Secretary, Mr. B. P. Johnson, for an early copy of this work. It strikes us as being one of the best of the series yet published for the Society. The articles appear to be better selected, and more condensed and practical, than they have been for several years past. Among so many things presented for publication, it is a delicate matter on the part of the Secretary to so choose and select, as not to give offense to the County Societies and individual contributors, and yet do justice to the State Society, and those among whom the work is particularly designed to be distributed. It would undoubtedly be a greater benefit to the public if this volume were condensed more than it now is; but it would perhaps not answer the purposes of the Society as well, nor be as popular generally with members? There are certain forms, reports, and speeches which must annually appear in this document, whether inetresting to the majority of readers or not; as it is a work of standing reference for dry details and statistics, as well as popular information on agriculture.

After our criticisms upon former volumes it gives us great pleasure to be able to say that the paper and typhography of this volume of the Transactions, is more uniform and agreeable to the eye than any we have received for several years past. There is no reason why the State Printer should fall behind private publishers—with the governmental facilities, public printing, like public steam engines, public fire-arms, &c., should be *models* for imitation.

THE YEAR BOOK OF AGRICULTURE, or the Annual of Agricultural Progress and Discovery for 1855 and 1856; by David Wells, A. M. Published by Childs and Peterson, Philadelphia. For sale in New-York by C. M. Saxton & Co. This work, announced in our advertising columns and referred to by us some weeks since, is just published. We received a copy at the moment of closing this column—too late to allow of an examination sufficient to decide how well the editor has carried out the *design* of such a work, which we approved in our announcement in advance. We notice a manifest error in the title page, which the publishers should correct at once; we refer to the book being called the "Annual of Agricultural Progress and Discovery for 1855 & 1856;" which should be for "1854 & '55," as the report closes with September of 1855. This is a matter of some importance, if the work is to be continued as a serial.

PATENT OFFICE REPORT FOR 1854.—*Agricultural Division.*—Why should we be compelled from year to year to announce the report as above. We think it would read better thus: "Report of the United States Agricultural Bureau." To such a Department, *if necessary*, the Patent Office might be attached, as the largest class of patents is that including agricultural implements. But this by the way. The Report before us is in the usual form and style; contains 520 pages; is well printed, on excellent paper for a "public document," and from a cursory examination, we think the matter in the pages of this volume is an improvement upon its predecessors. One hundred thousand extra copies were printed for the members of Congress (about 250 each), so that those specially interested will probably be able to obtain a few copies, by applying to the Representatives in Congress from their district.

THE TIME AND THE END; A Prophetic Period, developing, as predicted, an increase of knowledge respecting the Prophecies and Periods that foretell the end. Illustrated by the history of prophetic interpretation, the expectation of the Church; together with various interpretations of Scripture prophetic periods by a great number of commentators and theological writers. By a Congregationalist. New-York, Sheldon, Lamport & Blackman; pp. 408. A pretty full discussion of the subject for those interested in such matters.

THE REFUGEE, or the Narratives of Fugitive Slaves in Canada, as related by themselves, with an account of the history and condition of the Colored Population in Upper Canada. By Benj. Drew, Boston. J. P. Jewett & Co.; pp. 387.

THE EVENTFUL NIGHTS of August 20th and 21st, 1854, and how Judge Edmonds was hocussed, or the fallibility of "Spiritualism" exposed. By F. C. Ewer. New-York: S. Hueston. Pamphlet, pp. 106; price 25c.

AMERICAN FEMALE EDUCATION; What? and by Whom? A Lecture by R. W. Cushman, A. M., Principal of Mt. Vernon Ladies' School, Boston. A neat pamphlet, published by Jewett & Co.

## REVIEW OF PRICES, WEATHER, &C.

AMERICAN AGRICULTURIST OFFICE }
NEW-YORK, Nov. 24, 1855. }

Since our last monthly summary the prices of Breadstuffs have slowly and almost constantly advanced, especially in the lower grades. The most rapid advance in Flour and Wheat has taken place within the last day or two, resulting from the near approach of the close of canal navigation, and the favorable news from Europe received by the Canada at Halifax, on Thursday (22nd inst). The canals are advertised to close on the 5th of December. The great demand to make up an unforeseen and unexpected deficiency in Europe, has exhausted a greater portion of the surplus flour and wheat arriving at the seaboard, so that we have now comparatively limited stocks for the winter's exports and consumption. We can not now look for any material decline in prices along the Atlantic coast during the winter; while the additional expense of bringing forward produce by railroad, will perhaps lower prices in the more distant interior towns. The following figures

show the comparative prices of some of the principal products at the two dates named:

| | Oct. 24. | Nov. 24. |
|---|---|---|
| Flour—Ordinary State | $8 50@8 75 | $9 50@9 62 |
| Mixed Western | 8 50@8 75 | 9 50@9 62 |
| Favorite and Extra St. | 8 62@8 75 | 9 62@9 68 |
| Extra Genesee | 9 50@10 00 | 10 00@11 50 |
| Wheat—Canada White | $2 05@2 16 | $2 25@2 20 |
| Western Red | 1 85@1 95 | 2 00@2 09 |
| Corn—Western Mixed | 91@93c. | 1 04@1 06 |
| Rye | 1 20@1 25 | 1 28@1 30 |
| Barley | | 1 20@1 30 |
| Oats—Western | 46@50c. | 52@ 54 |
| Cotton—Middling | 9¼@9¼c. | 9¼@9¼c. |

Rice closes to-day at $4.62@$5.25 ℔ 100 lbs., a decline of ¼c. ℔ lb.

Sugars have fluctuated somewhat, closing at a little advance over last month.

Pork is unchanged. Mess Pork sold to-day for $22.00@$22.50 ℔ lb. Dressed hogs for 8¾c.@8¾c. ℔ lb. Lard has advanced a little closing, at 12c.@12½c. ℔ lb.

Butter has experienced a considerable advance, closing at 18c.@22c. for western; 24c.@28c. for common to very good State butter, and 28c.@31c. for very choice. Cheese has also advanced, and closes at 10c.@11½c.

Beef cattle have fluctuated considerably, as usual. They have generally ruled pretty low, but sold a little higher on this week's market day.

The above quotations, we are happy to say, show a very favorable state of things for the farmers of this country. The prospective continuance of the war, and the general deficiency of crops in Europe, give a fair prospect of continued high prices here, notwithstanding our heavy crops. Now is the time for farmers to increase the productions of their lands to the highest limits, to pay off all indebtedness, and by avoiding debt place themselves in a position to be independent of any future financial revulsions that may come upon us—revulsions that many are predicting will soon be experienced.

The Weather.—Since our last review we have generally had beautiful weather. The closing week of October was marked by clear fair weather, with the exceptions of a slight rain on the 27th. The heavy rain noticed at the time of our last remarks (Oct. 24), cleared away on the 25th.

November 1st was clear. The depth of water that fell on the 3d, equaled full 1 1-5 inches (1.22). From the 4th to the 11th, the weather was generally clear; on the 8th a shower of short duration showed a ½ inch of water, and on the 12th nearly as much more (0.42) fell. From the 12th to the 20th we had fair, beautiful weather, with a cold change on the 17th—the thermometer falling nearly 10 degrees, and it still continues cold, though it is comparatively warm for the season. On Wednesday (21st) considerable rain fell. To-day we have a very high wind, about the first strong blow of the season. Snow has fallen a few degrees north of us. The genial weather for several weeks past has had a favorable effect upon winter wheat and rye, giving them a strong root-hold to withstand frosts.

P. S.—Monday, November 26. We have to-day a warm smoky atmosphere indicative of another edition of Indian Summer.

## INDEX.



## A CHEAP AGRICULTURAL LIBRARY.

**By reprinting some of the earlier volumes,** and supplying deficient numbers of the later volumes, the publishers have succeeded in preparing a number of complete sets of the American Agriculturist, beginning with 1842 and ending with the volume just closed.

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It will be *progressive* in its character, having a constant watch for all improvements and new developments; and, at the same time, be sufficiently conservative to avoid and warn its readers against visionary theories, and the dangerous teachings of those who would create or distort scientific theories to subserve their private interests.

The *American Agriculturist* will be entirely independent of all collateral interests. The conducting and controling Editor, having no connection with any business whatever, will take good care that its pages shall be devoted only to such matters as relate directly to the interests of the reader.

It will continue under the CONTROL and MANAGEMENT of Mr. O. JUDD, who will be assisted by the counsels and contributions of those gentlemen who first originated the *Agriculturist*, and have done much to maintain its uniform high character—including Messrs. A. B. ALLEN, LEWIS F. ALLEN, Rev. WM. CLIFT, together with several able contributors, whose united labors will serve to fill its pages with matter eminently serviceable to every owner or cultivator of even the smallest plot of ground.

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| | |
|---|---|
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|---|---|
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PRINTED BY H. C. REYNOLDS, No. 189 Water-st.